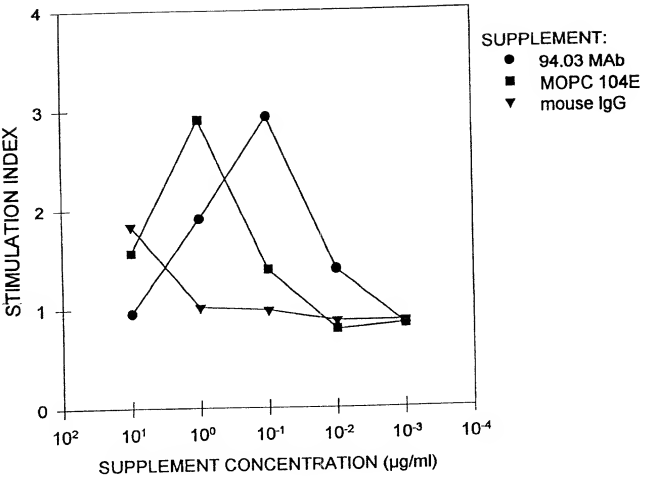

4
3
2
1
0
STIMULATION INDEX
10^{2}
10^{1}
10^{0}
10^{-1}
10^{-2}
10^{-3}
10^{-4}
SUPPLEMENT CONCENTRATION (µg/ml)
SUPPLEMENT:
94.03 MAb
MOPC 104E
mouse IgG

Figure 1

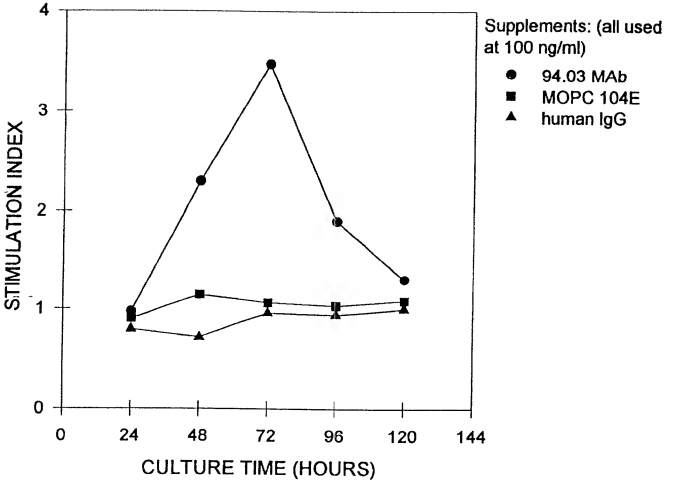

4
3
2
1
0
STIMULATION INDEX
0
24
48
72
96
120
144
CULTURE TIME (HOURS)
Supplements: (all used at 100 ng/ml)
94.03 MAb
MOPC 104E
human IgG

Figure 2

FIG. 3A

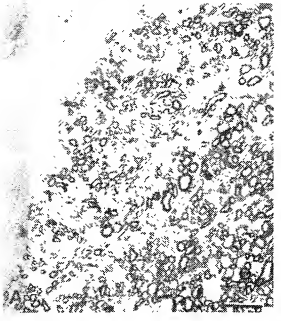
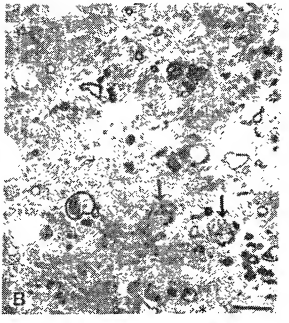


FIG. 3B



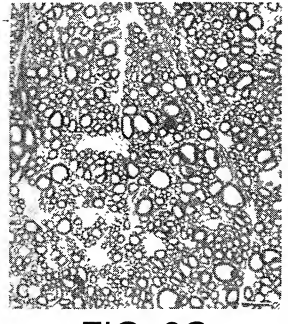


FIG. 3C

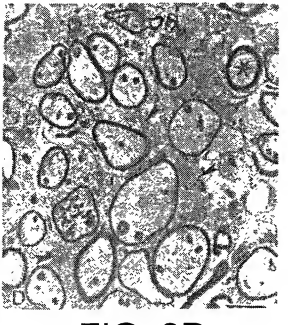


FIG. 3D

Figure 3

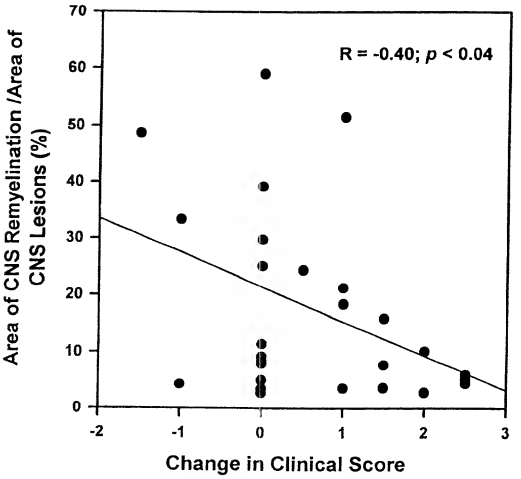

R = -0.40; p < 0.04
Area of CNS Remyelination /Area of CNS Lesions (%)
Change in Clinical Score
70
60
50
40
30
20
10
0
-2
-1
0
1
2
3

Figure 4

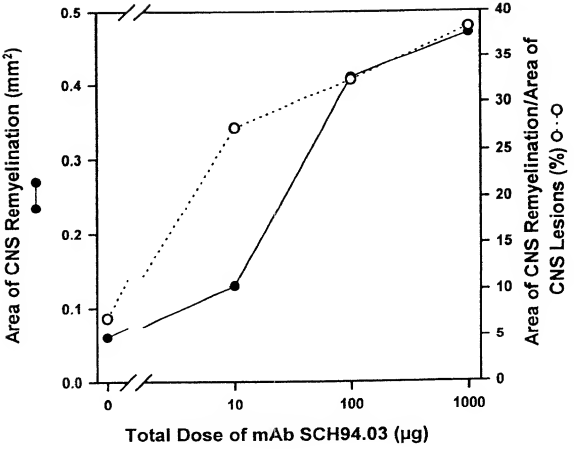

Area of CNS Remyelination (mm²)
Area of CNS Remyelination/Area of CNS Lesions (%) O···O
0.5
0.4
0.3
0.2
0.1
0.0
40
35
30
25
20
15
10
5
0
0
10
100
1000
Total Dose of mAb SCH94.03 (µg)

Figure 5

FIG. 6

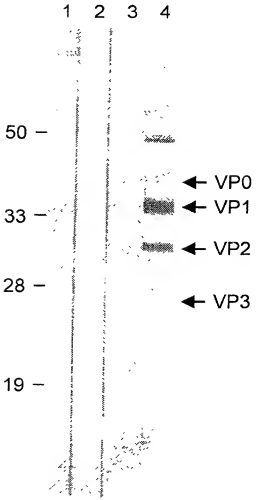


Figure 6

FIG. 7A

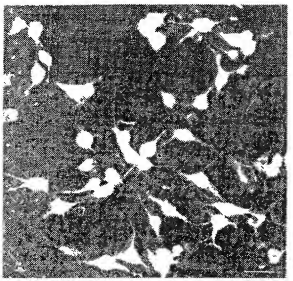
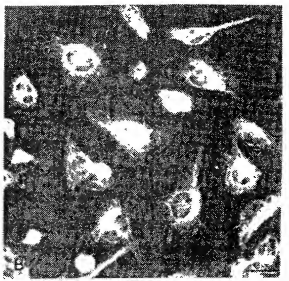


FIG. 7B



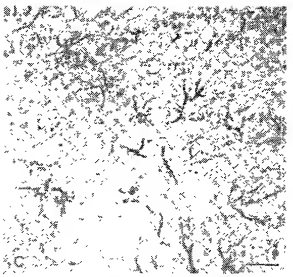


FIG. 7C

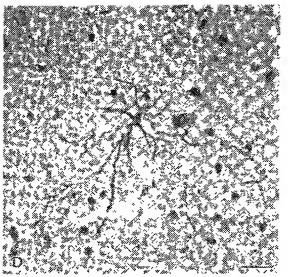


FIG. 7D

Figure 7

FIG. 8A

FIG. 8B

FIG. 8C

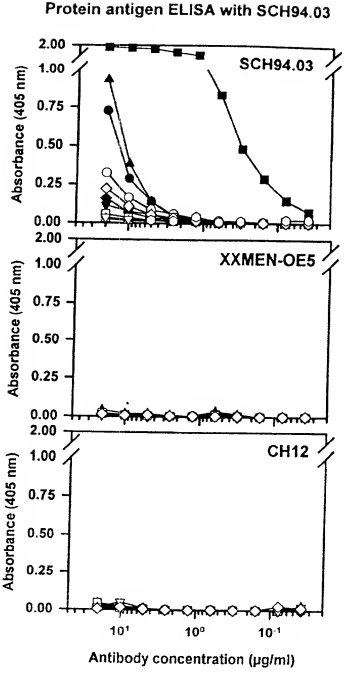


Figure 8

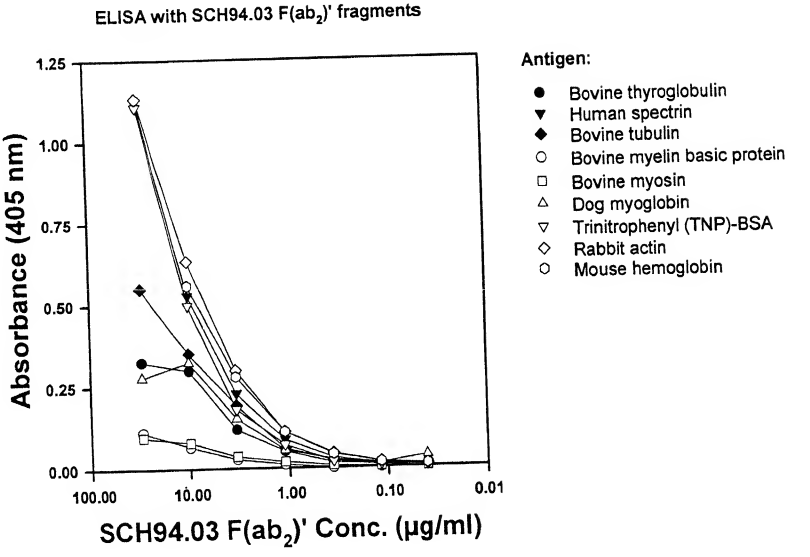

ELISA with SCH94.03 F(ab2)' fragments
Absorbance (405 nm)
1.25
1.00
0.75
0.50
0.25
0.00
100.00
10.00
1.00
0.10
0.01
SCH94.03 F(ab2)' Conc. (µg/ml)
Antigen:
Bovine thyroglobulin
Human spectrin
Bovine tubulin
Bovine myelin basic protein
Bovine myosin
Dog myoglobin
Trinitrophenyl (TNP)-BSA
Rabbit actin
Mouse hemoglobin

Figure 9

FIG. 10A

FIG. 10B

FIG. 10C

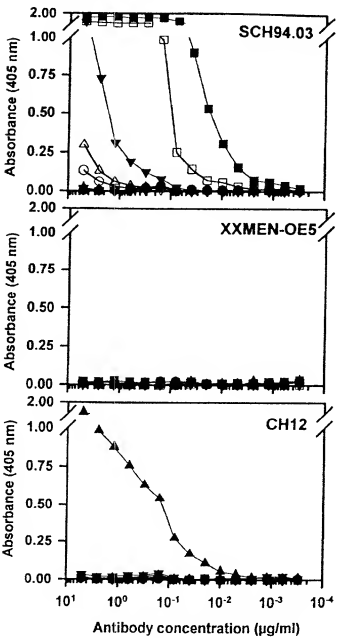


Figure 10

Immunoglobulin Light Chain Variable Region Sequence of SCH94.03

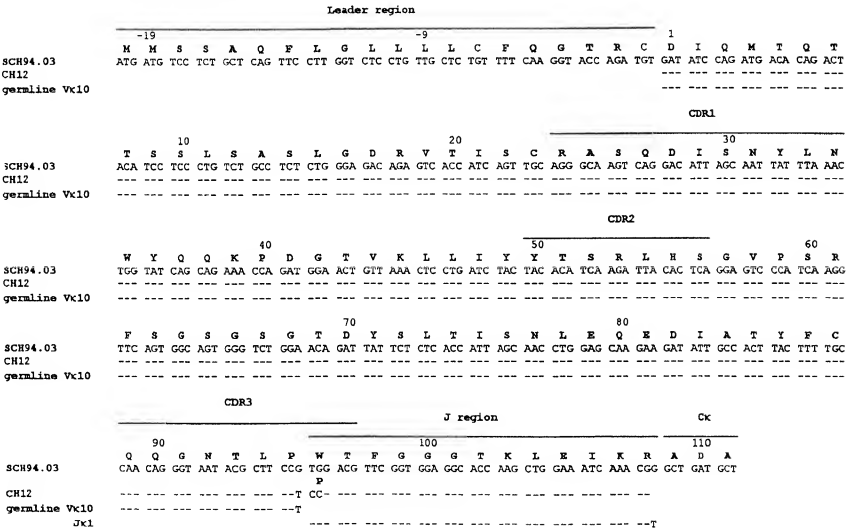


Figure 11A

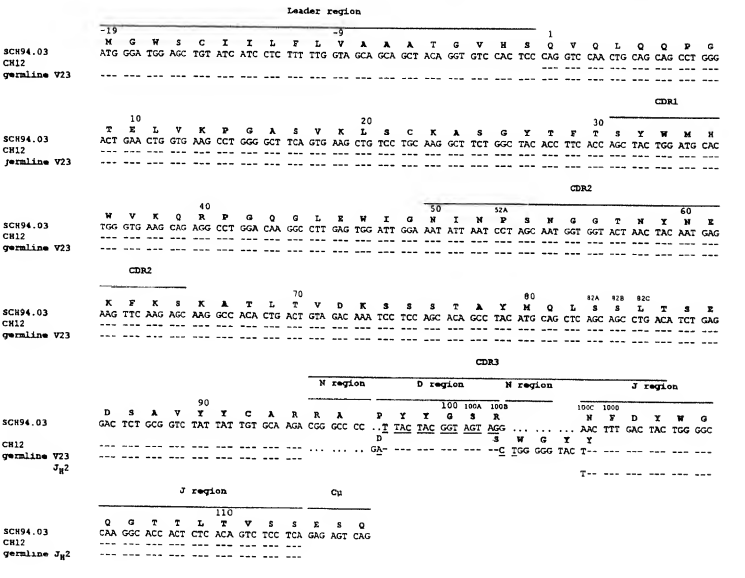

Immunoglobulin Heavy Chain Variable Region Sequence of SCH94.03
Leader region
CDR1
CDR2
CDR2
CDR3
N region
D region
N region
J region
J region
SCH94.03
CH12
germline V23
germline J_H2

Figure 11B

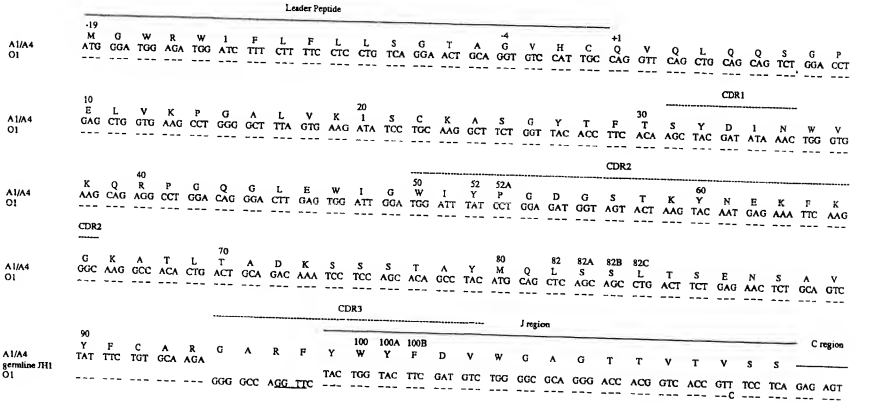

Leader Peptide
CDR1
CDR2
CDR3
J region
C region
A1/A4 O1
A1/A4 germline JH1 O1

Figure 12

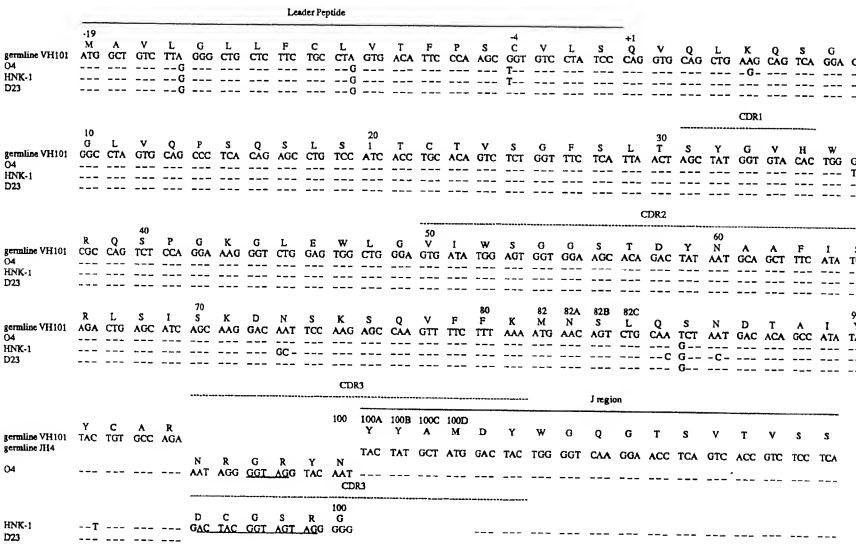

Leader Peptide
CDR1
CDR2
CDR3
J region
germline VH101
germline JH4
04
HNK-1
D23

Figure 13

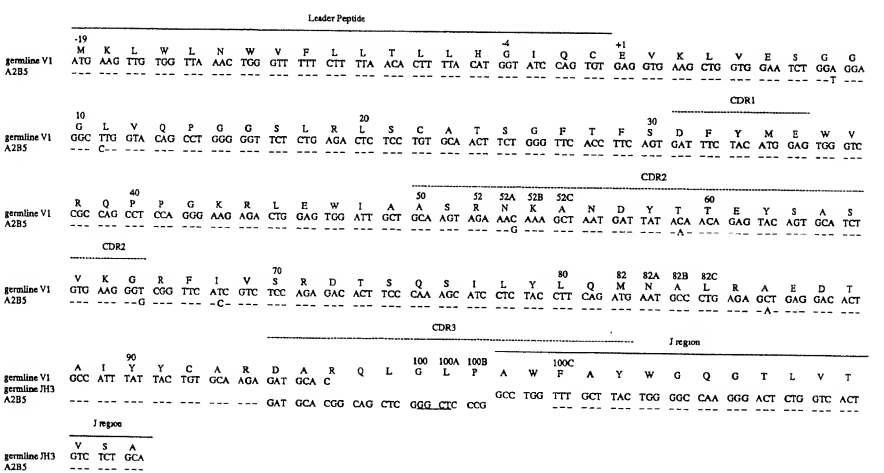

Leader Peptide
CDR1
CDR2
CDR2
CDR3
J region
J region
germline V1
A2B5
germline JH3
A2B5

Figure 14

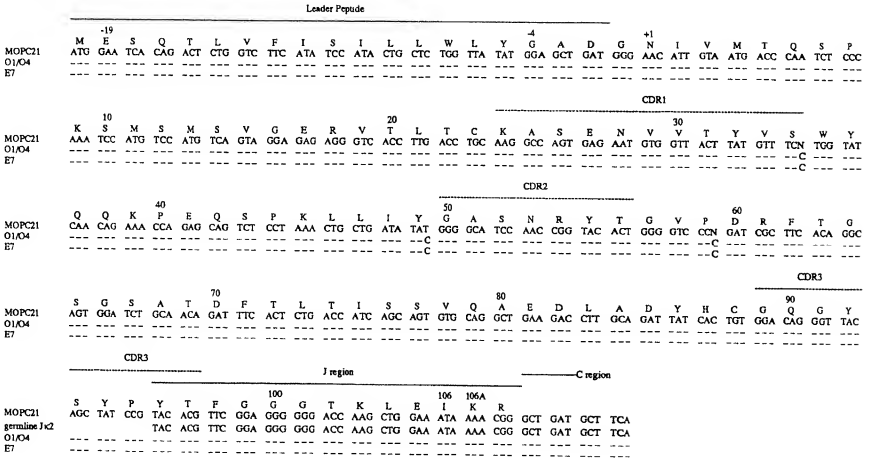

Leader Peptide
CDR1
CDR2
CDR3
J region
C region
MOPC21
O1/O4
E7
germline Jκ2

Figure 15

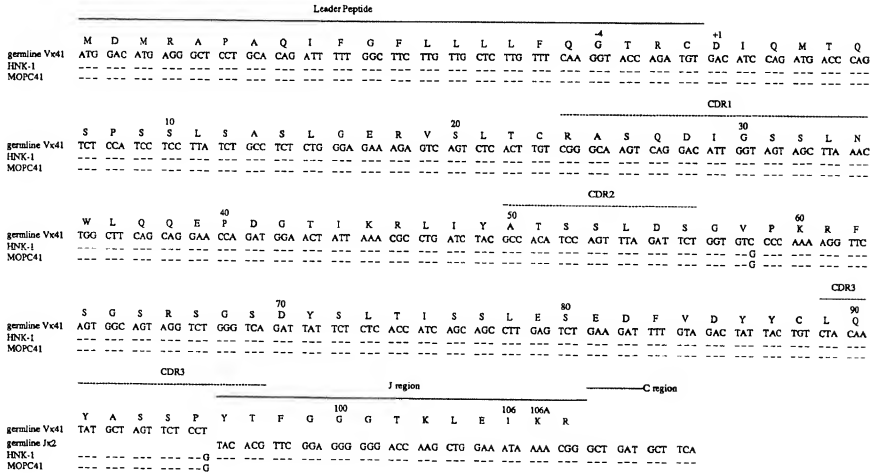

Leader Peptide
CDR1
CDR2
CDR3
J region
C region
germline Vκ41
germline Jκ2
HNK-1
MOPC41

Figure 16

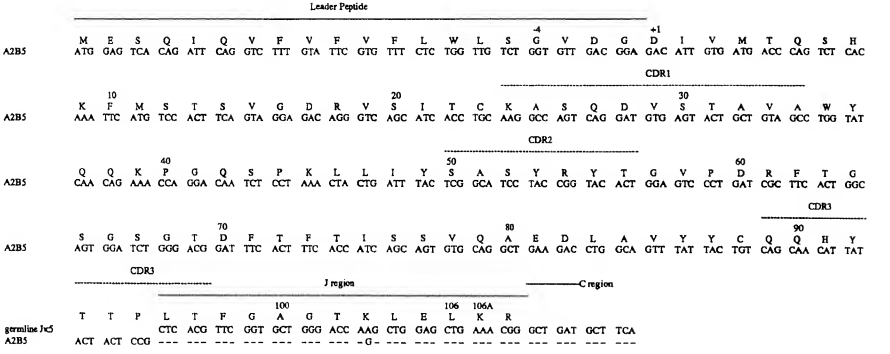

Leader Peptide
CDR1
CDR2
CDR3
J region
C region
A2B5
germline Jκ5
A2B5

Figure 17

FIG. 18

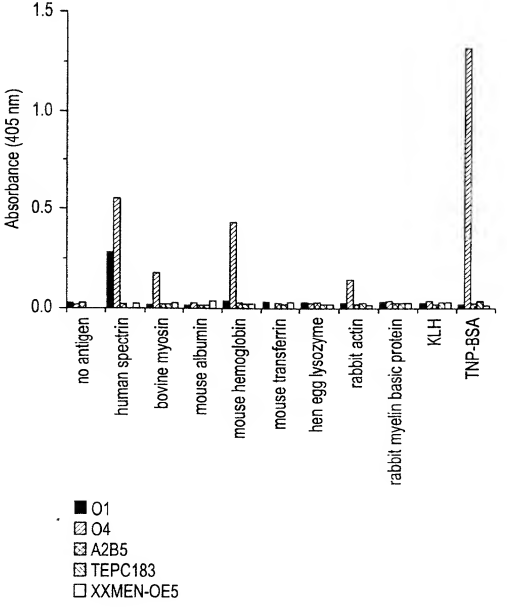


Figure 18

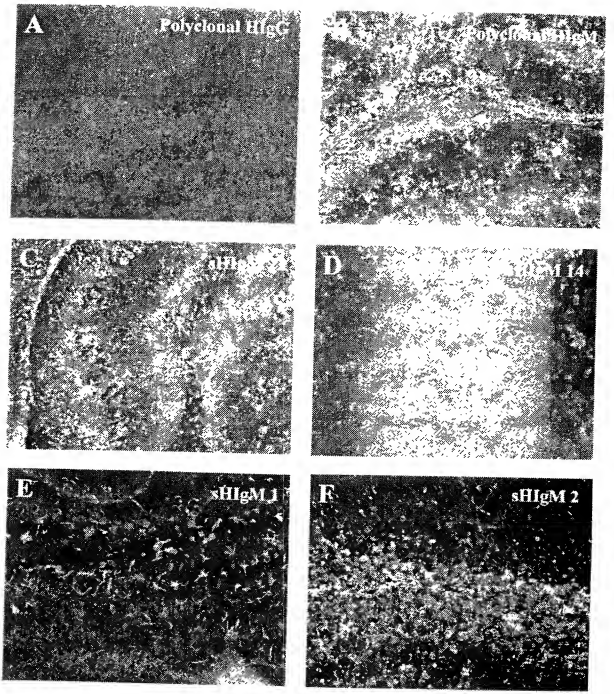


Figure 19

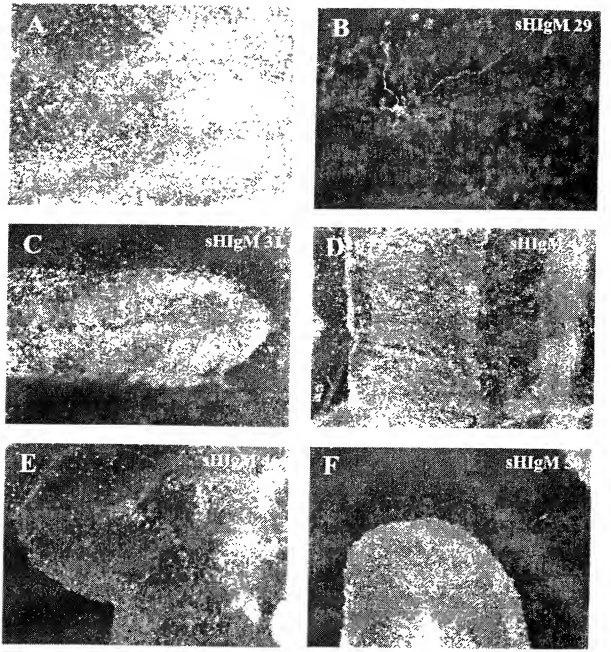


Figure 20

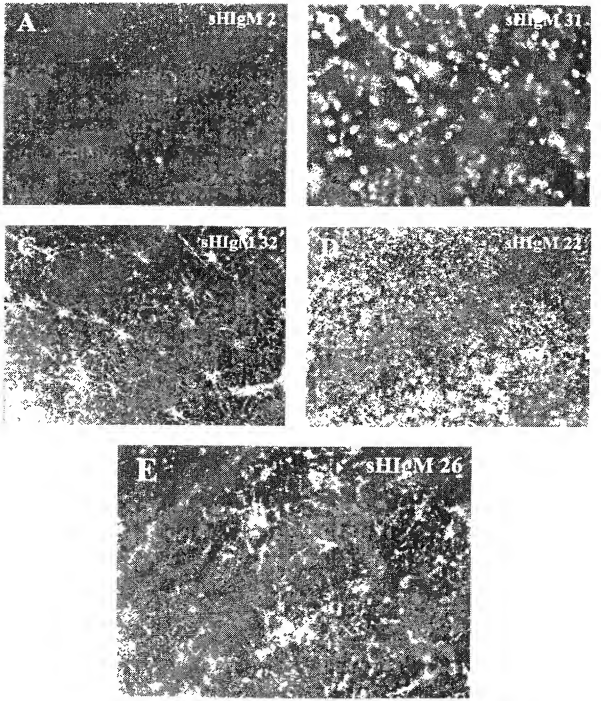


Figure 21

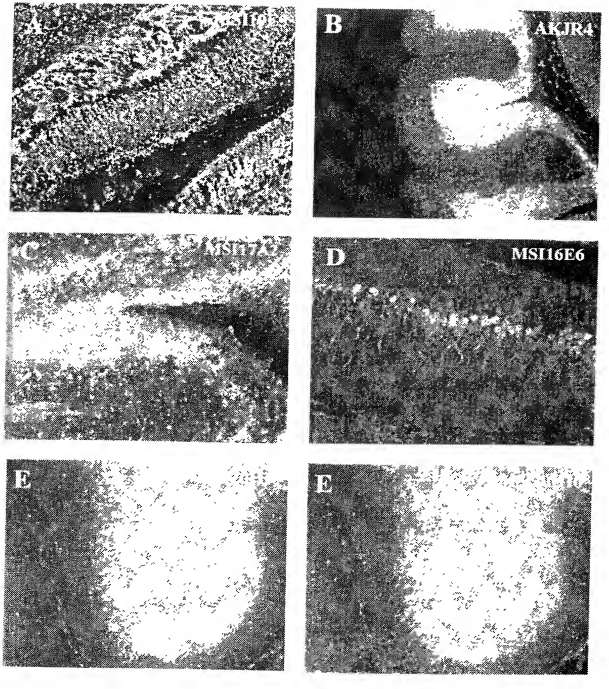


Figure 22

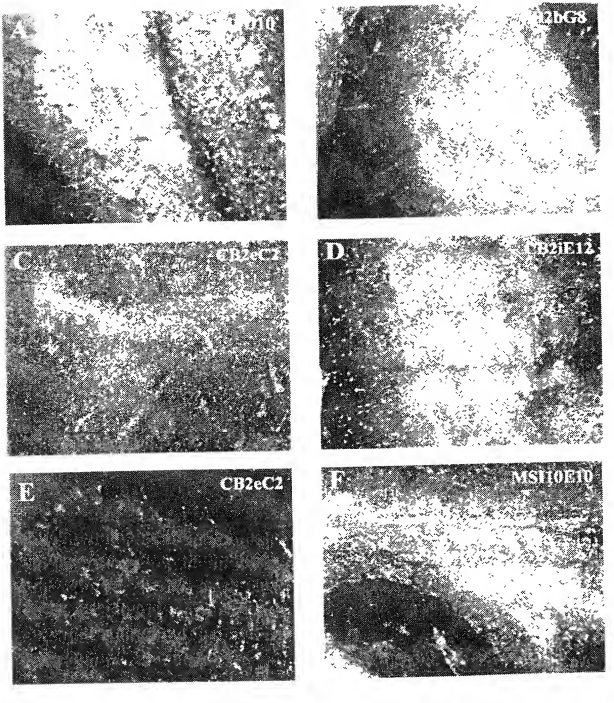


Figure 23

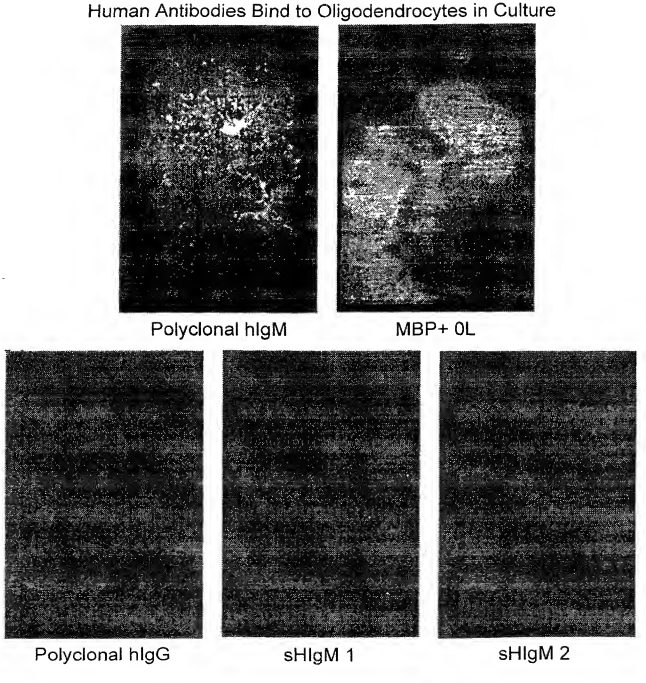

Human Antibodies Bind to Oligodendrocytes in Culture
Polyclonal hIgM
MBP+ 0L
Polyclonal hIgG
sHIgM 1
sHIgM 2

Figure 24

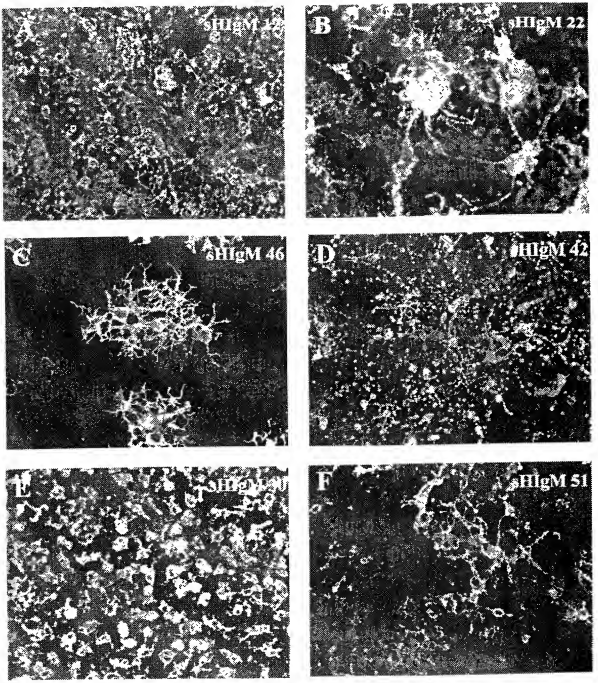


Figure 25

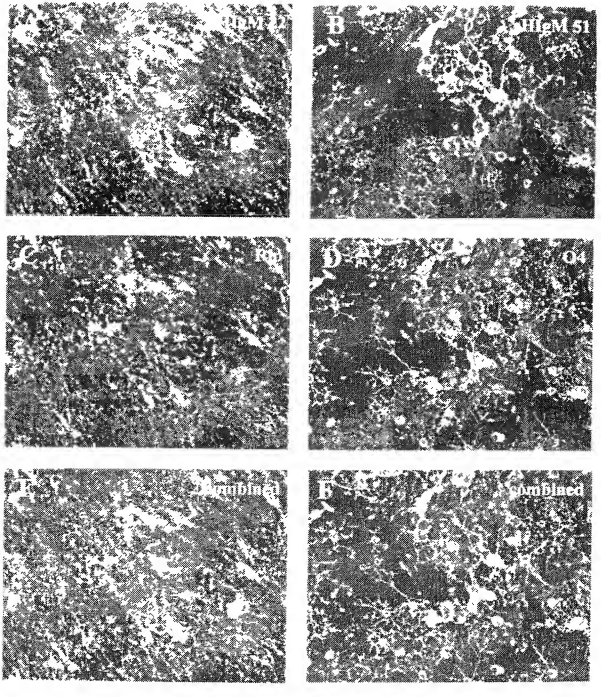


Figure 26

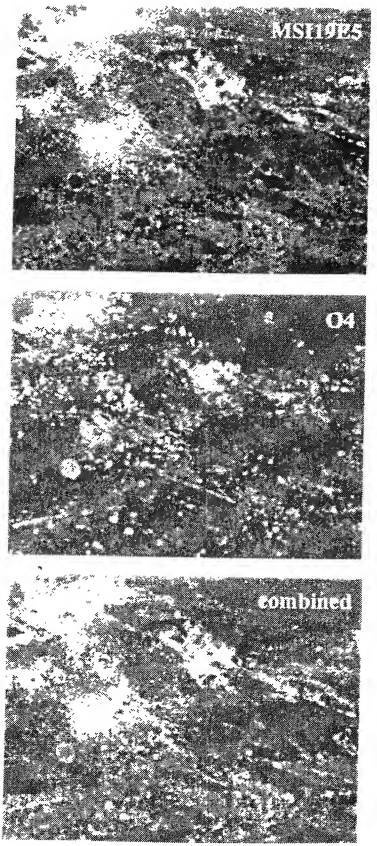


Figure 27

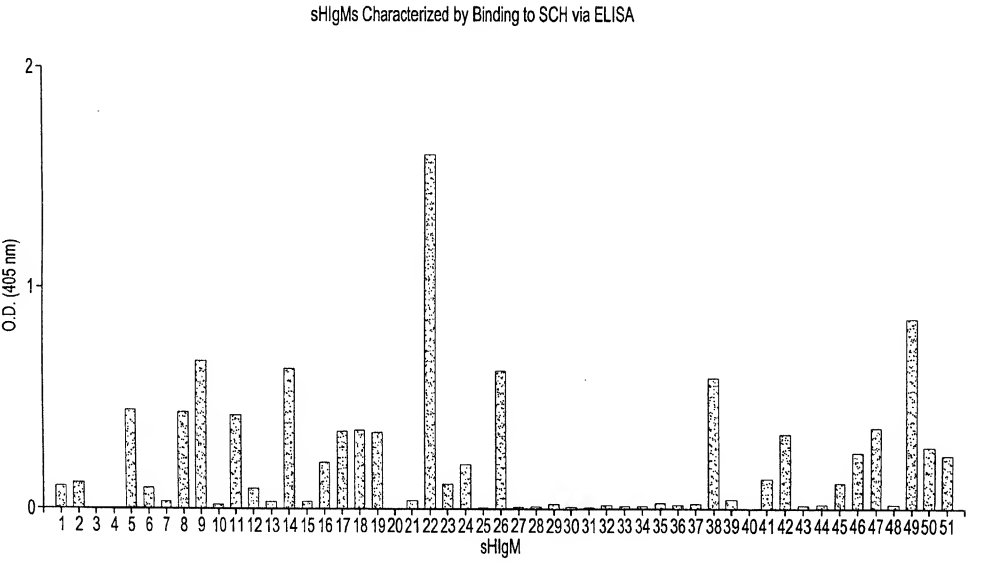

sHIgMs Characterized by Binding to SCH via ELISA
O.D. (405 nm)
0
1
2
1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27 28 29 30 31 32 33 34 35 36 37 38 39 40 41 42 43 44 45 46 47 48 49 50 51
sHIgM

Figure 28

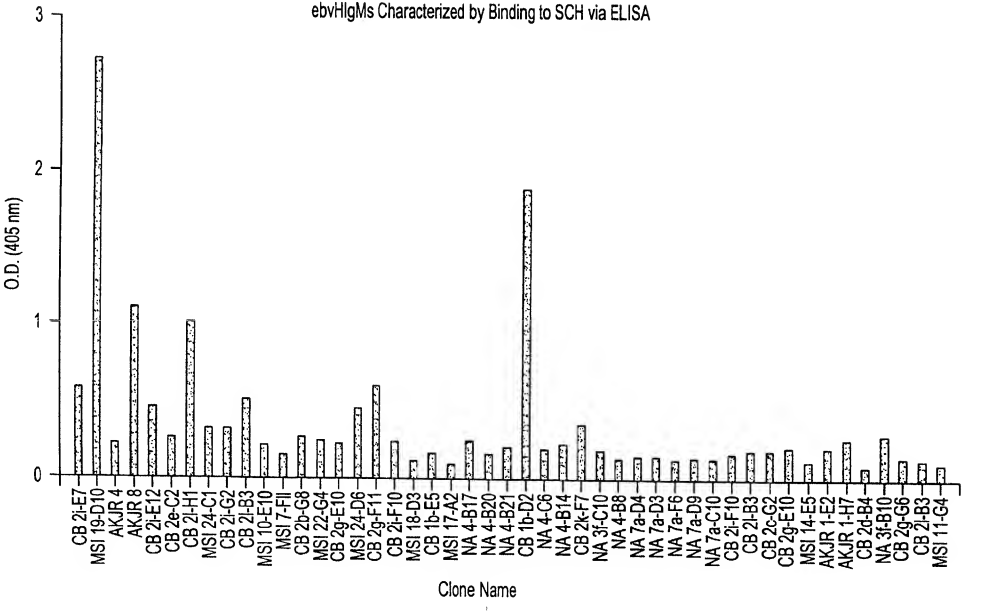

ebvHIgMs Characterized by Binding to SCH via ELISA
O.D. (405 nm)
3
2
1
0
CB 2i-E7
MSI 19-D10
AKJR 4
AKJR 8
CB 2i-E12
CB 2e-C2
CB 2i-H1
MSI 24-C1
CB 2i-G2
CB 2i-B3
MSI 10-E10
MSI 7-FII
CB 2b-G8
MSI 22-G4
CB 2g-E10
MSI 24-D6
CB 2g-F11
CB 2i-F10
MSI 18-D3
CB 1b-E5
MSI 17-A2
NA 4-B17
NA 4-B20
NA 4-B21
CB 1b-D2
NA 4-C6
NA 4-B14
CB 2k-F7
NA 3i-C10
NA 4-B8
NA 7a-D4
NA 7a-D3
NA 7a-F6
NA 7a-D9
NA 7a-C10
CB 2i-F10
CB 2i-B3
CB 2c-G2
CB 2g-E10
MSI 14-E5
AKJR 1-E2
AKJR 1-H7
CB 2d-B4
NA 3i-B10
CB 2g-G6
CB 2i-B3
MSI 11-G4
Clone Name

Figure 29

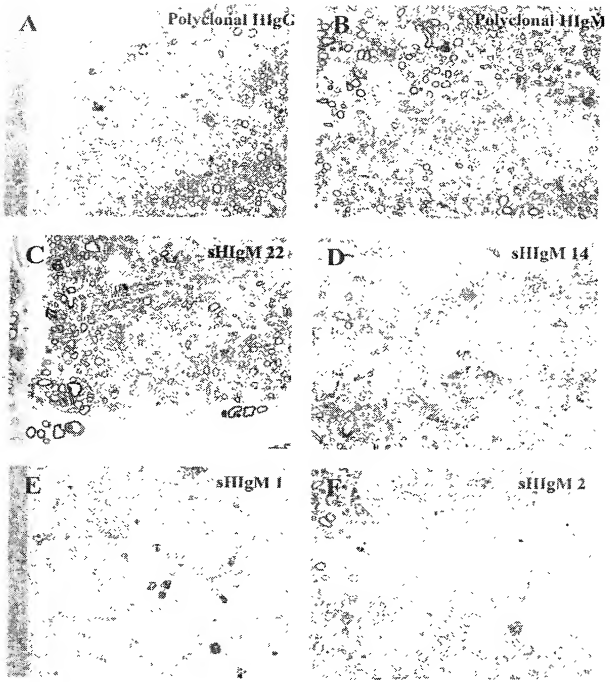

A
Polyclonal HIgG
B
Polyclonal HIgM
C
sHIgM 22
D
sHIgM 14
E
sHIgM 1
F
sHIgM 2

Figure 30

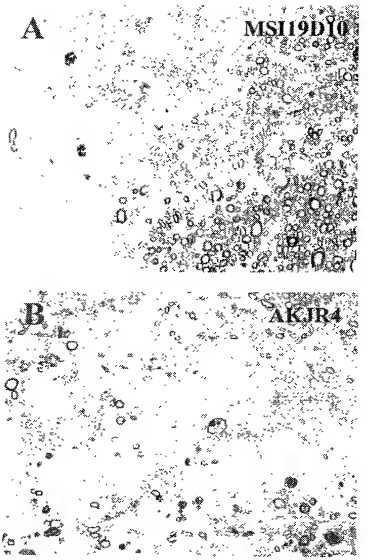
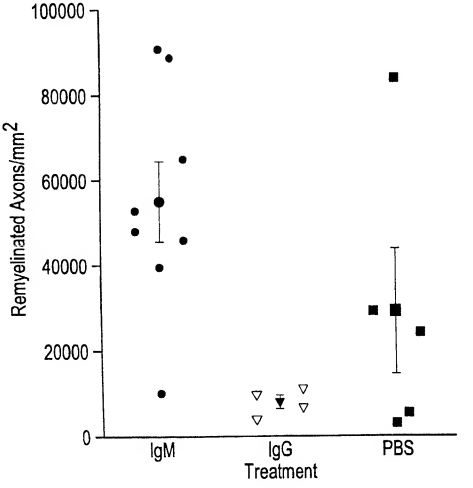


Figure 31

Lysolecithin Experiment 21 Day Experiment



ANIMAL #	STRAIN	RX	DAY RX	Axons/mm^2
1091-98	SJL	HUMAN IGM	7	47881.04
1093-98	SJL	HUMAN IGM	7	90745.80
1094-98	SJL	HUMAN IGM	7	88638.09
1095-98	SJL	HUMAN IGM	7	52767.82
1181-98	SJL	HUMAN IGM	7	45583.42
1182-98	SJL	HUMAN IGM	7	39289.31
1183-98	SJL	HUMAN IGM	7	64636.39
1184-98	SJL	HUMAN IGM	7	9937.24
Mean				**54934.89**
SEM				**9376.95**
1135-98	SJL	HUMAN IGG	7	9433.96
1139-98	SJL	HUMAN IGG	7	3702.92
1140-98	SJL	HUMAN IGG	7	11028.19
1141-98	SJL	HUMAN IGG	7	6493.06
Mean				**7664.53**
SEM				**1620.49**
1122-98	SJL	PBS	7	2457.22
1124-98	SJL	PBS	7	23746.34
1170-98	SJL	PBS	7	83549.17
1171-98	SJL	PBS	7	4819.92
1172-98	SJL	PBS	7	28878.82
Mean				**28690.29**
SEM				**14649.14**

Figure 32

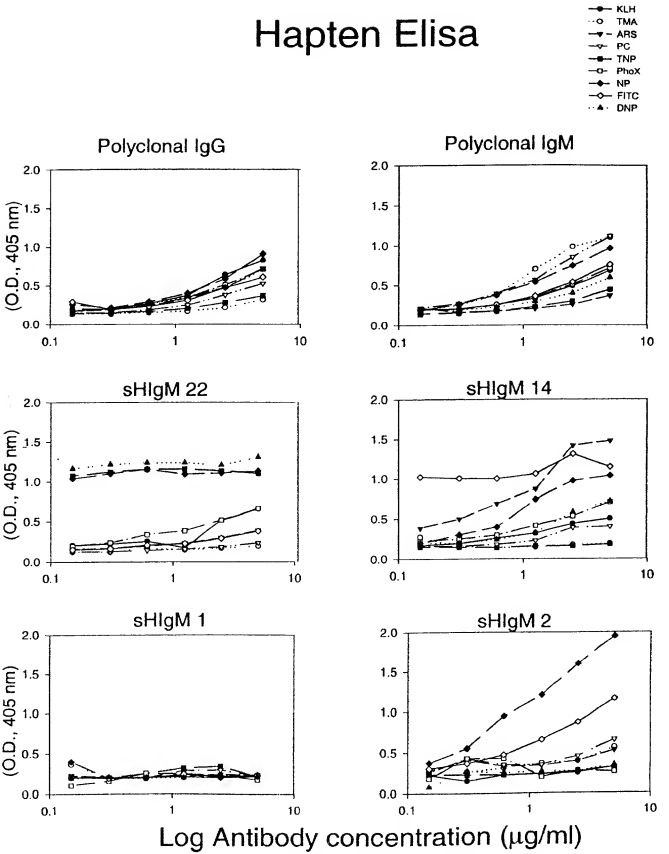

Hapten Elisa
KLH
TMA
ARS
PC
TNP
PhoX
NP
FITC
DNP
Polyclonal IgG
Polyclonal IgM
sHIgM 22
sHIgM 14
sHIgM 1
sHIgM 2
(O.D., 405 nm)
Log Antibody concentration (µg/ml)

Figure 33

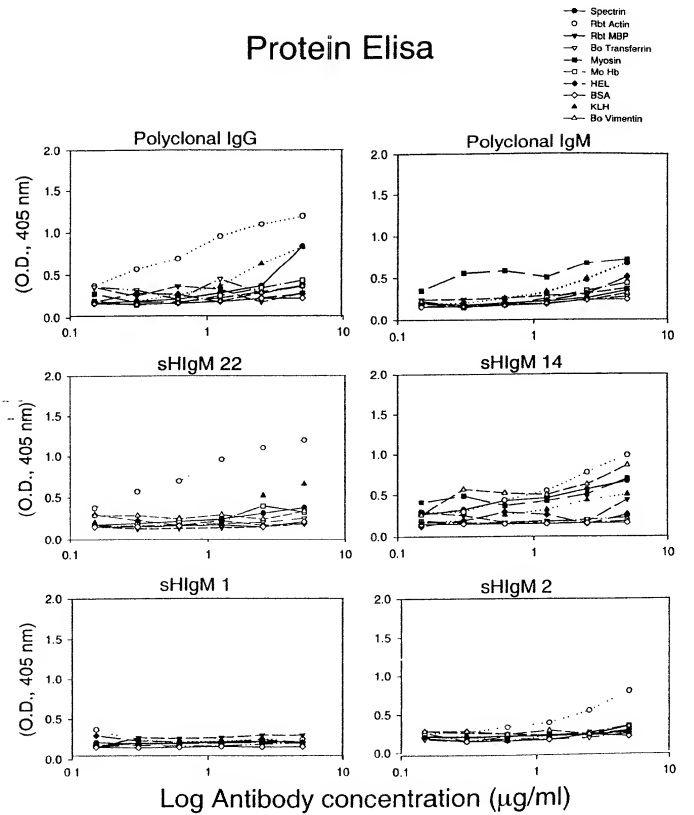

Protein Elisa
Spectrin
Rbt Actin
Rbt MBP
Bo Transferrin
Myosin
Mo Hb
HEL
BSA
KLH
Bo Vimentin
Polyclonal IgG
Polyclonal IgM
sHIgM 22
sHIgM 14
sHIgM 1
sHIgM 2
(O.D., 405 nm)
Log Antibody concentration (μg/ml)

Figure 34

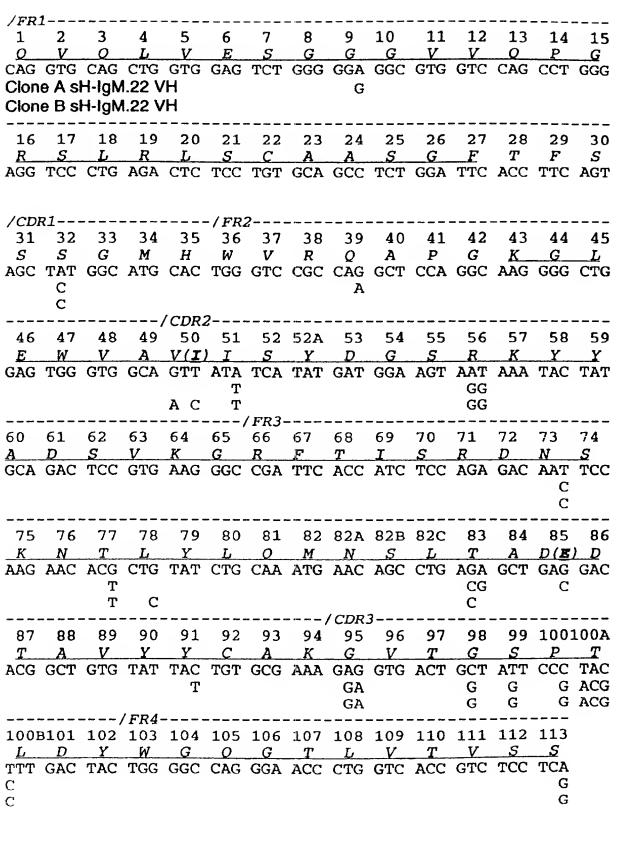

/FR1
Clone A sH-IgM.22 VH
Clone B sH-IgM.22 VH
/CDR1
/FR2
/CDR2
/FR3
/CDR3
/FR4

Figure 35

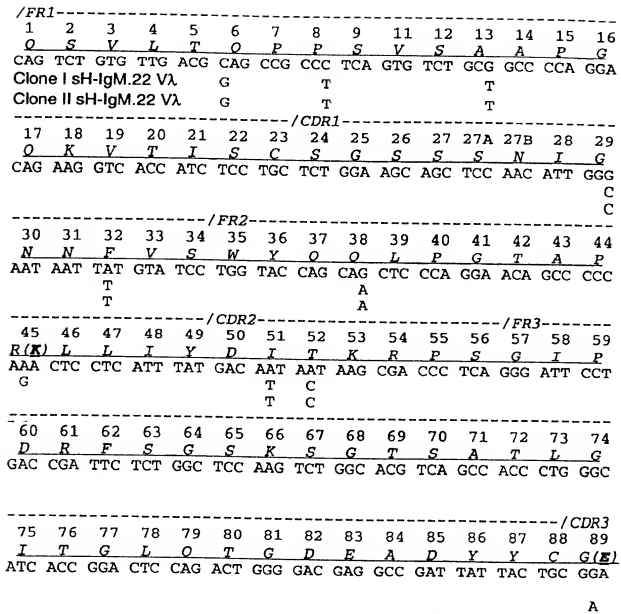

/FR1
1 2 3 4 5 6 7 8 9 11 12 13 14 15 16
Q S V L T Q P P S V S A A P G
CAG TCT GTG TTG ACG CAG CCG CCC TCA GTG TCT GCG GCC CCA GGA
Clone I sH-IgM.22 Vλ G T T
Clone II sH-IgM.22 Vλ G T T
/CDR1
17 18 19 20 21 22 23 24 25 26 27 27A 27B 28 29
Q K V T I S C S G S S S N I G
CAG AAG GTC ACC ATC TCC TGC TCT GGA AGC AGC TCC AAC ATT GGG
C
C
/FR2
30 31 32 33 34 35 36 37 38 39 40 41 42 43 44
N N F V S W Y Q Q L P G T A P
AAT AAT TAT GTA TCC TGG TAC CAG CAG CTC CCA GGA ACA GCC CCC
T A
T A
/CDR2 /FR3
45 46 47 48 49 50 51 52 53 54 55 56 57 58 59
R(K) L L I Y D I T K R P S G I P
AAA CTC CTC ATT TAT GAC AAT AAT AAG CGA CCC TCA GGG ATT CCT
G T C
T C
60 61 62 63 64 65 66 67 68 69 70 71 72 73 74
D R F S G S K S G T S A T L G
GAC CGA TTC TCT GGC TCC AAG TCT GGC ACG TCA GCC ACC CTG GGC
/CDR3
75 76 77 78 79 80 81 82 83 84 85 86 87 88 89
I T G L Q T G D E A D Y Y C G(E)
ATC ACC GGA CTC CAG ACT GGG GAC GAG GCC GAT TAT TAC TGC GGA
A
/FR4
90 91 92 93 94 95 95A 95B 96 97 98 99 100 101 102
T W D S S L S A V V F G G G T
ACA TGG GAT AGC AGC CTG ... ..T GTG GTA TTC GGC GGA GGG ACC
AGT GC G
AGT GC G
/Cλ
103 104 105 106 106A107 108 109 110
K L T V L G Q P K
AAG CTG ACC GTC CTA GGT CAG CCC AAG

Figure 36

Sequence of MSI 19-D10 VH

```
FR1-------------------------------------------------------------
 1   2   3   4   5   6   7   8   9  10  11  12  13  14  15  16
CAG GTG CAG CTG CAG GAG TCG GGC CCA GGA CTG GTG AAG CCT TCG GAG
 Q   V   Q   L   Q   E   S   G   P   G   L   V   K   P   S   E

-------------------------------------------------------------/CDR1
17  18  19  20  21  22  23  24  25  26  27  28  29  30  31
ACC CTG TCC CTC ACC TGC ACT GTC TCT GGT GGC TCC ATC AGT AGT
 T   L   S   L   T   C   T   V   S   G   G   S   I   S   S

--------------/FR2-----------------------------------------
32  33  34  35  36  37  38  39  40  41  42  43  44  45  46
TAC TAC TGG AGC TGG ATC CGG CAG CCC CCA GGG AAG GGA CTG GAG
 Y   Y   W   S   W   I   R   Q   P   P   G   K   G   L   E

-----------/CDR2-------------------------------------------
47  48  49  50  51  52  53  54  55  56  57  58  59  60  61
TGG ATT GGG TAT ATC TAT TAC AGT GGG AGC ACC AAC TAC AAC CCC
 W   I   G   Y   I   Y   Y   S   G   S   T   N   Y   N   P

--------------/FR3-----------------------------------------
62  63  64  65  66  67  68  69  70  71  72  73  74  75  76
TCC CTC AAG AGT CGA GTC ACC ATA TCA GTA GAC ACG TCC AAG AAC
 S   L   K   S   R   V   T   I   S   V   D   T   S   K   N

-------------------------------------------------------------
77  78  79  80  81  82  82A 82B 82C 83  84  85  86  87  88
CAG TTC TCC CTG AAG CTG AGC TCT GTG ACC GCT GCG GAC ACG GCC
 Q   F   S   L   K   L   S   S   V   T   A   A   D   T   A

----------------------/CDR3-----------------------------------
89  90  91  92  93  94  95  96  97  98  99  100 100A100B100C
GTG TAT TAC TGT GCG AGG TCG GCA CAG CAG CAG CTG GTA TAC TAC
 V   Y   Y   C   A   R   S   A   Q   Q   Q   L   V   Y   Y

-----------/FR4-----------------------------------------/Cμ-
100D 101 102 103 104 105 106 107 108 109 110 111 112 113 114
TTT GAC TAC TGG GGC CAG GGA ACC CTG GTC ACC GTC TCC TCA GGG
 F   D   Y   W   G   Q   G   T   L   V   T   V   S   S   G
```

Figure 37

Sequence of MSI 19-D10 Vκ

```
FR 1----------------------------------------------------------
 1   2   3   4   5   6   7   8   9  10  11  12  13  14  15
GAC ATC GTG ATG ACC CAG TCT CCA GAC TCC CTG GCT GTG TCT CTG
 D   I   V   M   T   Q   S   P   D   S   L   A   V   S   L

-------------------------------/CDR1----------------------
16  17  18  19  20  21  22  23  24  25  26  27  27A 27B 27C
GGC GAG AGG GCC ACC ATC AAC TGC AAG TCC AGC CAG AGT GTT TTA
 G   E   R   A   T   I   N   C   K   S   S   Q   S   V   L

-----------------------------------------/FR2------------
27D 27E 27F 28  29  30  31  32  33  34  35  36  37  38
TAC AGC TCC AAC AAT AAG AAC TAC TTA GCT TGG TAC CAG CAG
 Y   S   S   N   N   K   N   Y   L   A   W   Y   Q   Q

-------------------------------------------/CDR2----------
39  40  41  42  43  44  45  46  47  48  49  50  51  52  53
AAA CCA GGA CAG CCT CCT AAG CTG CTC ATT TAC TGG GCA TCT ACC
 K   P   G   Q   P   P   K   L   L   I   Y   W   A   S   T

------------/FR3-------------------------------------------
54  55  56  57  58  59  60  61  62  63  64  65  66  67  68
CGG GAA TCC GGG GTC CCT GAC CGA TTC AGT GGC AGC GGG TCT GGG
 R   E   S   G   V   P   D   R   F   S   G   S   G   S   G

----------------------------------------------------------------
69  70  71  72  73  74  75  76  77  78  79  80  81  82  83
ACA GAT TTC ACT CTC ACC ATC AGC AGC CTG CAG GCT GAA GAT GTG
 T   D   F   T   L   T   I   S   S   L   Q   A   E   D   V

-----------------------/CDR3-----------------------------/FR4
84  85  86  87  88  89  90  91  92  93  94  95  96  97  98
GCA GTT TAT TAC TGT CAG CAA TAT TAT AGT ACT CCT CTC ACT TTC
 A   V   Y   Y   C   Q   Q   Y   Y   S   T   P   L   T   F

-------------------------------/Cκ-----------------------
99  100 101 102 103 104 105 106 107 108 109 110 111 112 113
GGC CCT GGG ACC AAA GTG GAT ATC AAA CGA ACT GTG GCT GCA CCA
 G   P   G   T   K   V   D   I   K   R   T   V   A   A   P
```

Figure 38

Mixed Primary Glia
sH-IgM.22 Ca^{2+} response

— ratio cell #1
— ratio cell #2
△ sH-IgM.22 (3μg/ml)
▲ Br-A23187 (10μM)

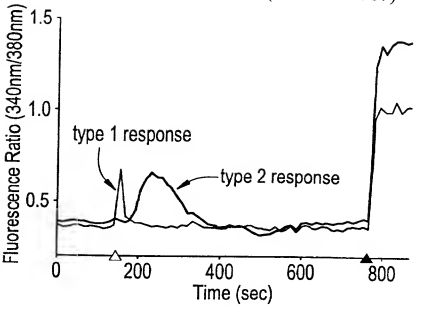


FIG. 39B

Mixed Primary Glia
SCH 94.03 Ca^{2+} response

— ratio cell #1
— ratio cell #2
△ SCH 94.03 (3μg/ml)
▲ Br-A23187 (10μM)

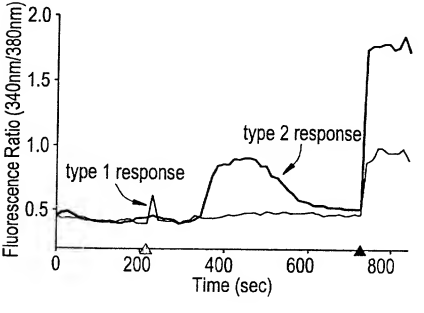


FIG. 39C

Mixed Primary Glia
CH 12/sH-IgM.14 Ca^{2+} response

— ratio cell #1
— ratio cell #2
△ CH 12 (3μg/ml)
△ sH-IgM.14 (3μg/ml)
▲ Br-A23187 (10μM)

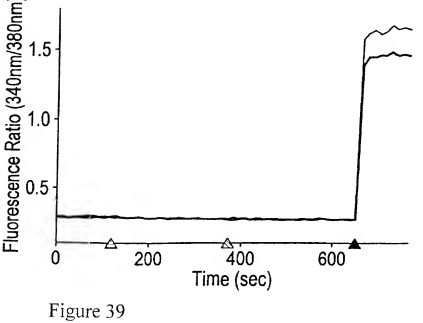


Figure 39

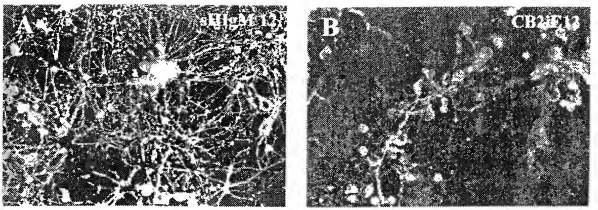


Figure 40

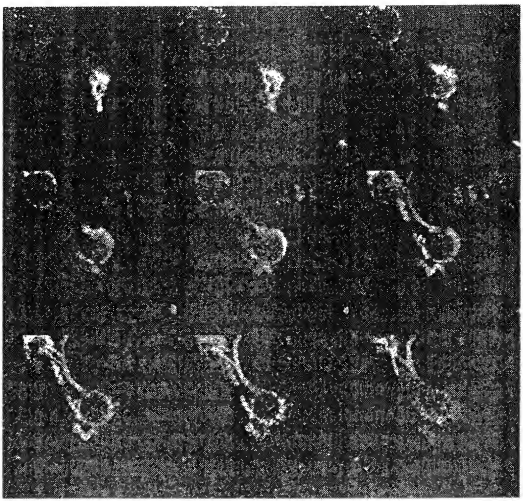


Figure 41

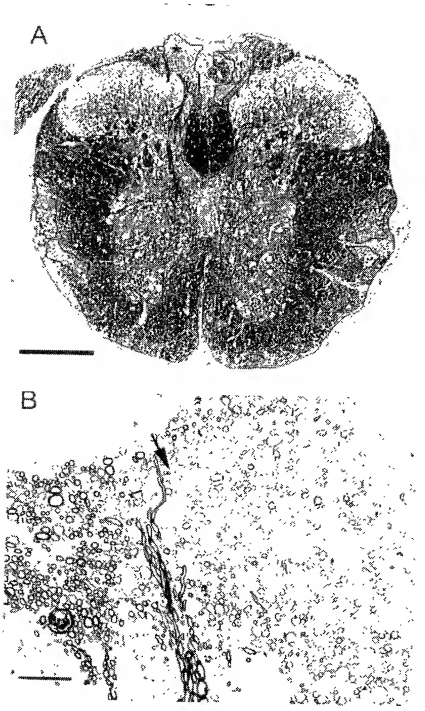


Figure 42

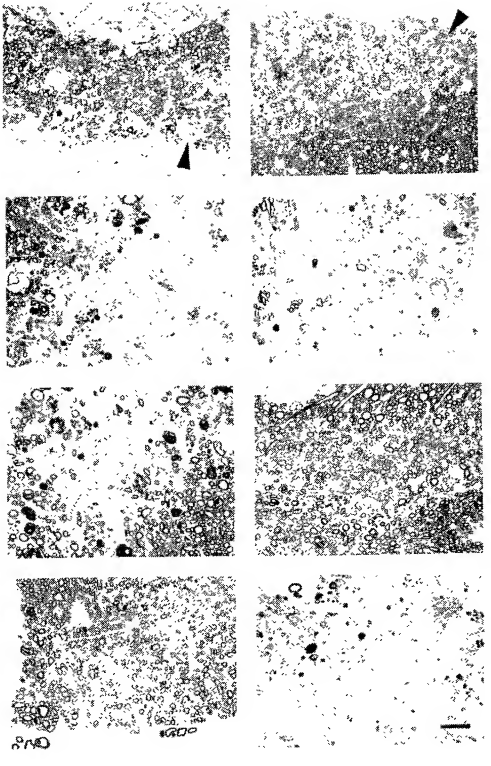


Figure 43

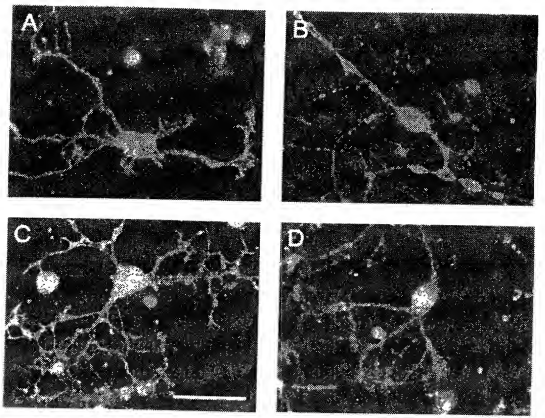


Figure 44

Translation of CB2b-G8 V_H:

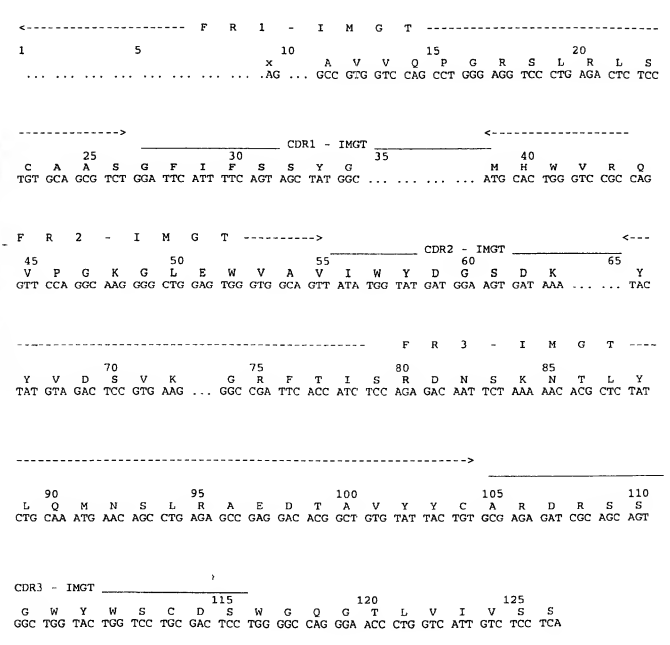


Figure 45

Translation of CB2b-G8 V_λ

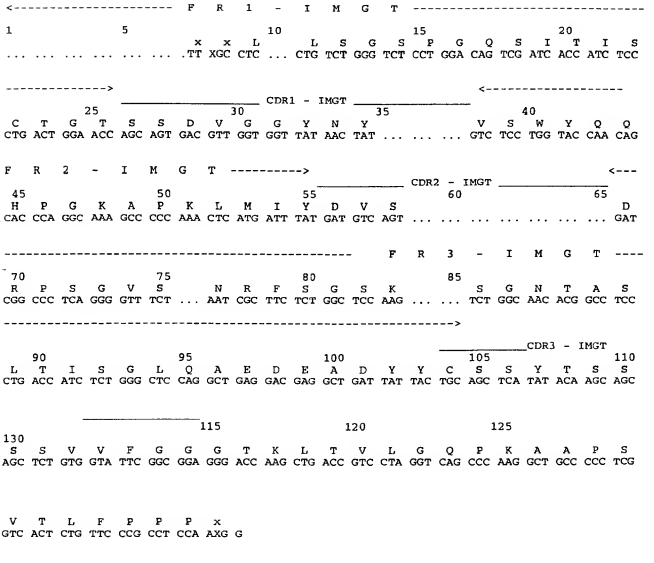


Figure 46

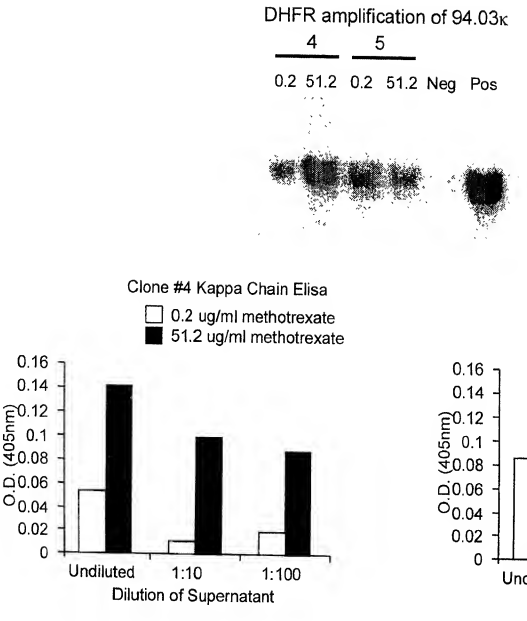

DHFR amplification of 94.03κ
4
5
0.2 51.2 0.2 51.2 Neg Pos
Clone #4 Kappa Chain Elisa
0.2 ug/ml methotrexate
51.2 ug/ml methotrexate
O.D. (405nm)
0.16
0.14
0.12
0.1
0.08
0.06
0.04
0.02
0
Undiluted
1:10
1:100
Dilution of Supernatant
Clone #5 Kappa Chain Elisa
0.2 ug/ml methotrexate
51.2 ug/ml methotrexate
O.D. (405nm)
0.16
0.14
0.12
0.1
0.08
0.06
0.04
0.02
0
Undiluted
1:10
1:100
Dilution of Supernatant

Figure 47

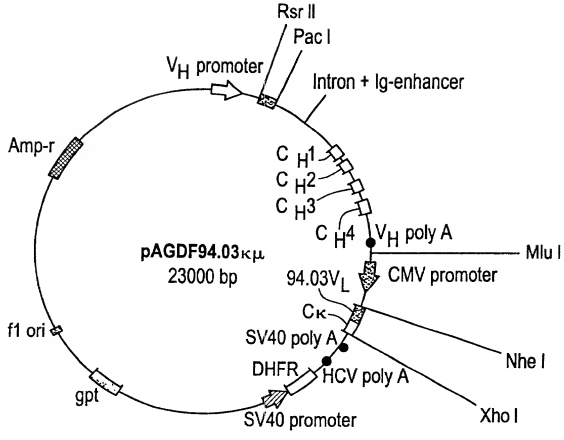


FIG. 48B

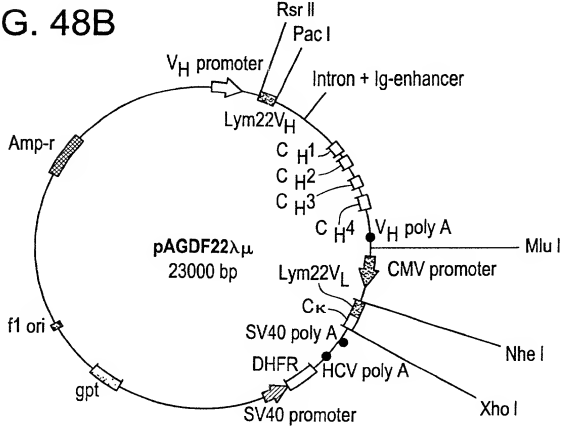


Figure 48

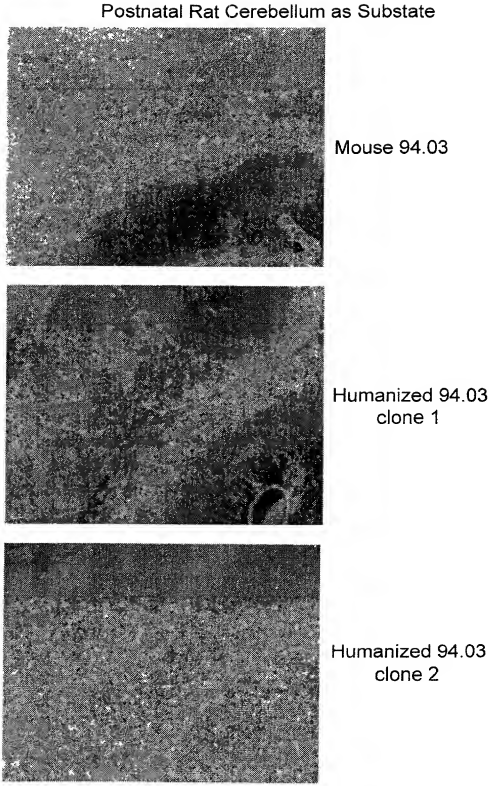

Postnatal Rat Cerebellum as Substate
Mouse 94.03
Humanized 94.03
clone 1
Humanized 94.03
clone 2

Figure 49

FIG. 50A

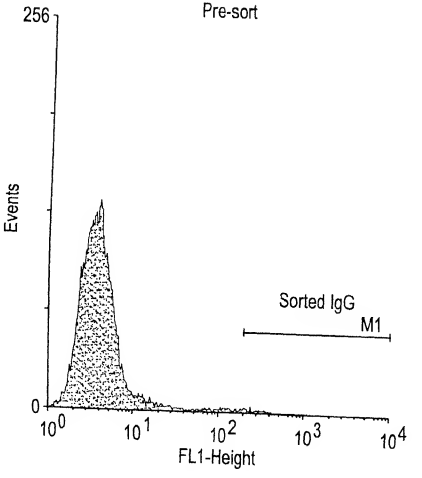


FIG. 50B

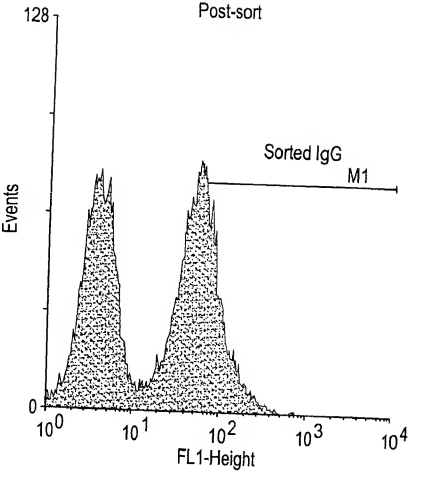


Figure 50

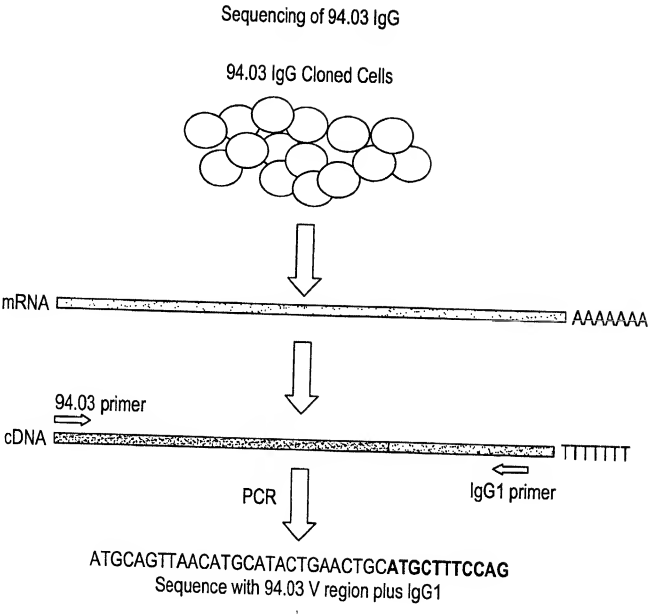

Sequencing of 94.03 IgG
94.03 IgG Cloned Cells
mRNA
AAAAAAA
94.03 primer
cDNA
TTTTTTT
PCR
IgG1 primer
ATGCAGTTAACATGCATACTGAACTGCATGCTTTCCAG
Sequence with 94.03 V region plus IgG1

Figure 51

09 V_K Sequence with translation:

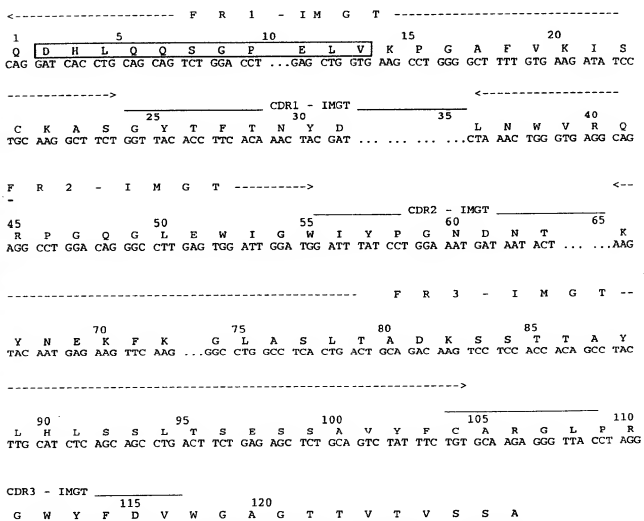


Figure 52

Translation of 09 kappa light chain 1:

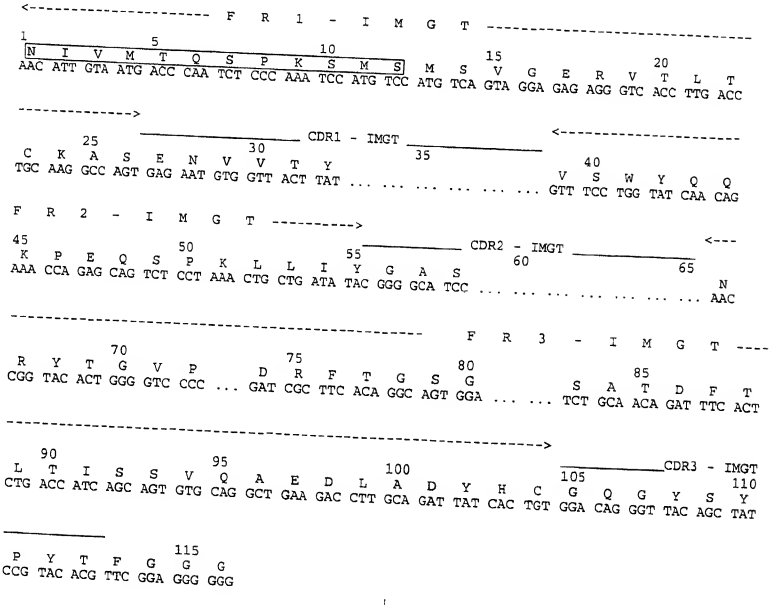


Figure 53

Translation of 09 kappa light chain 2:

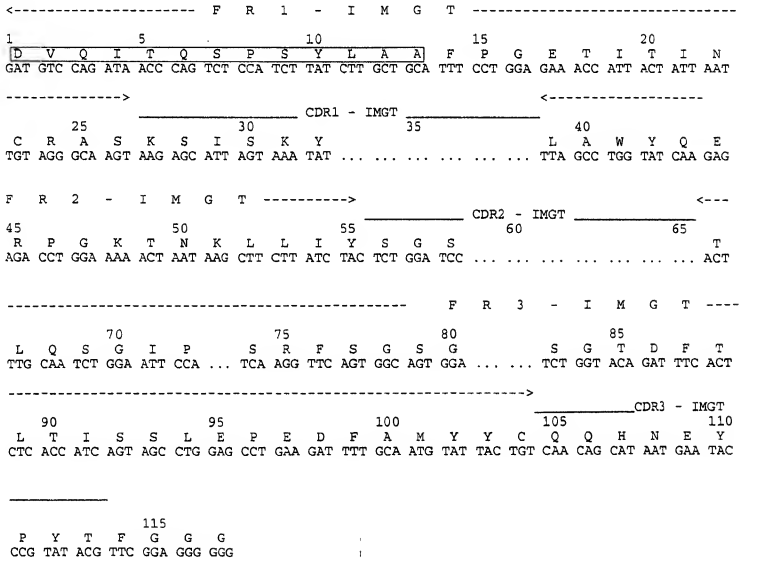


Figure 54

Translation of AKJR 4 Heavy Chain:

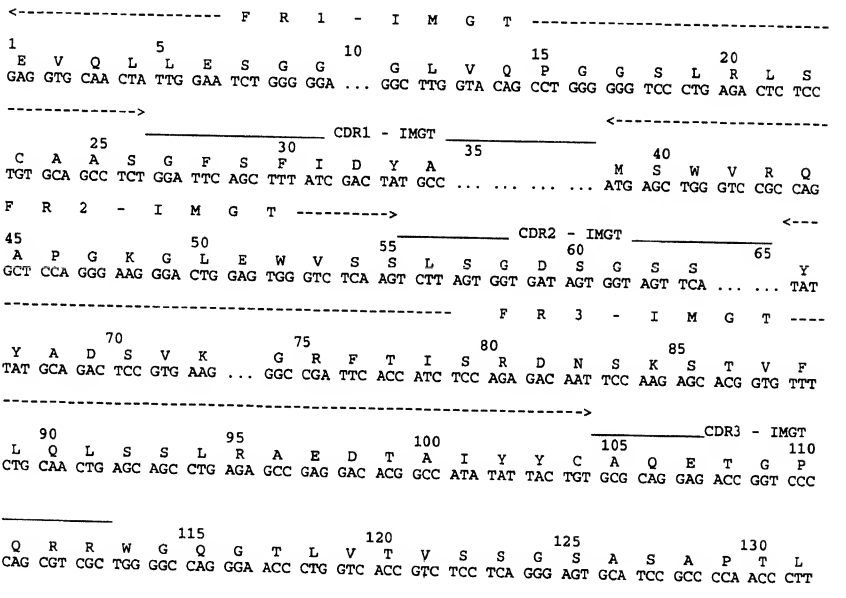


Figure 55

Translation of AKJR 4 Kappa Light Chain:

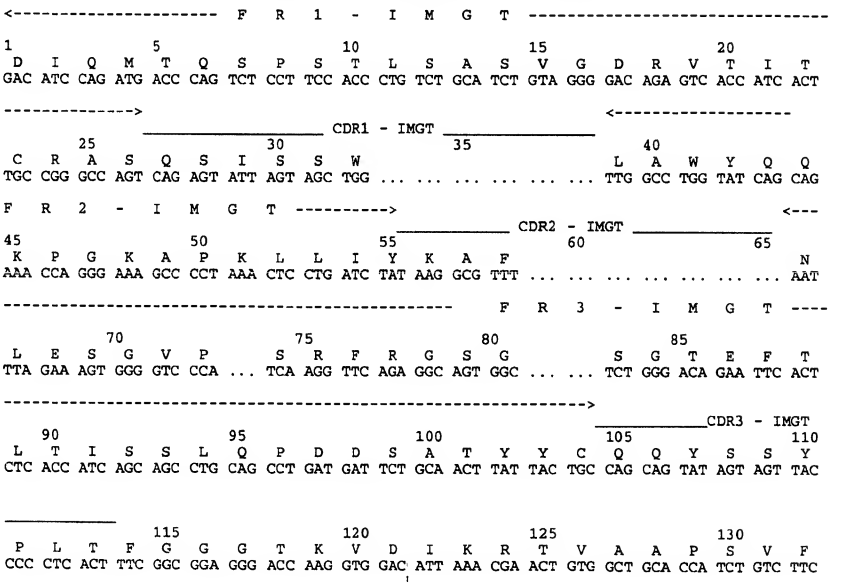


Figure 56

Translation of CB2i-E12 Heavy Chain:

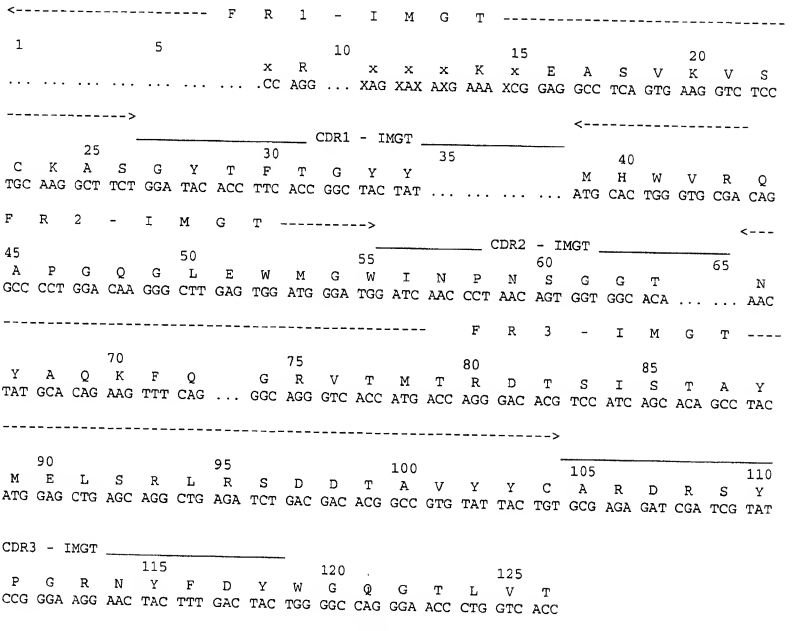


Figure 57

Translation of CB2i-E12 kappa chain:

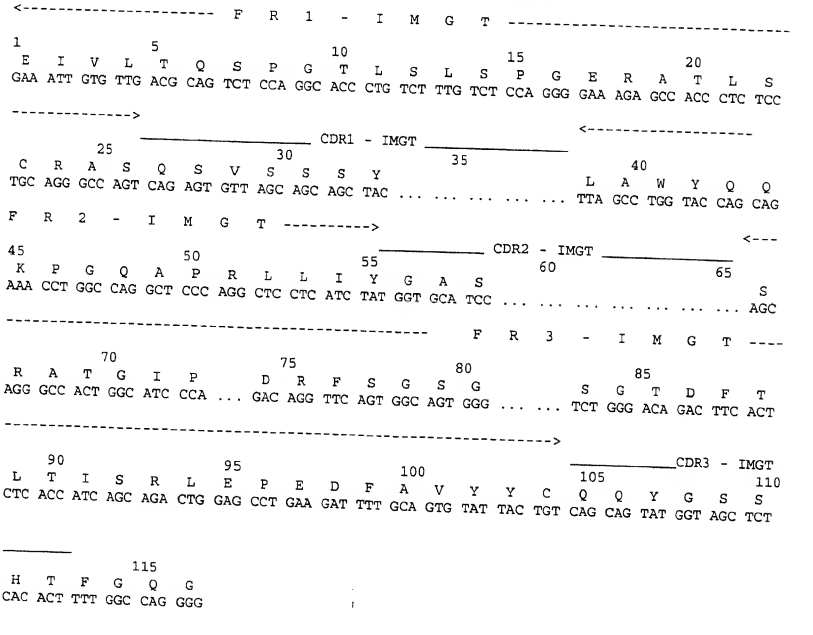


Figure 58

Translation of CB2i-E7 Heavy Chain:

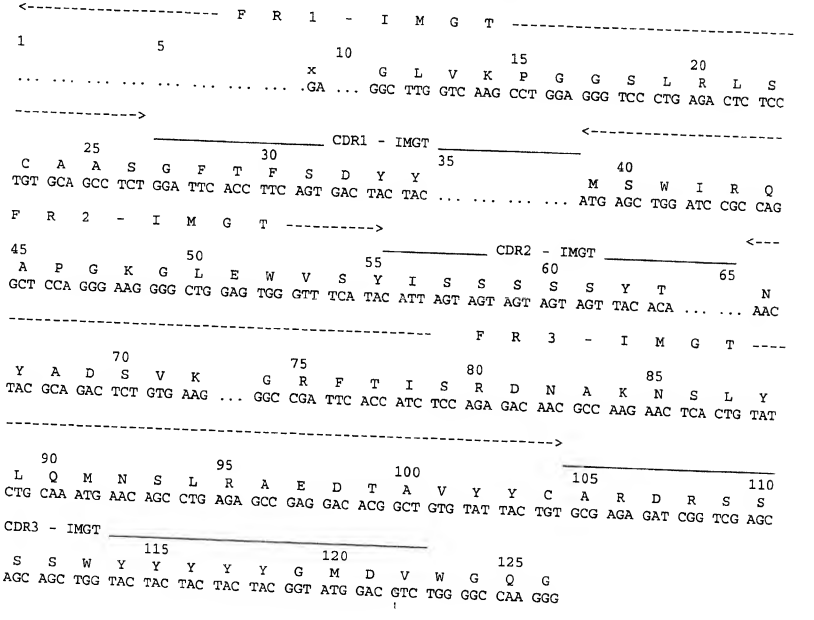


Figure 59

Translation of CB2i-E7 kappa Chain:

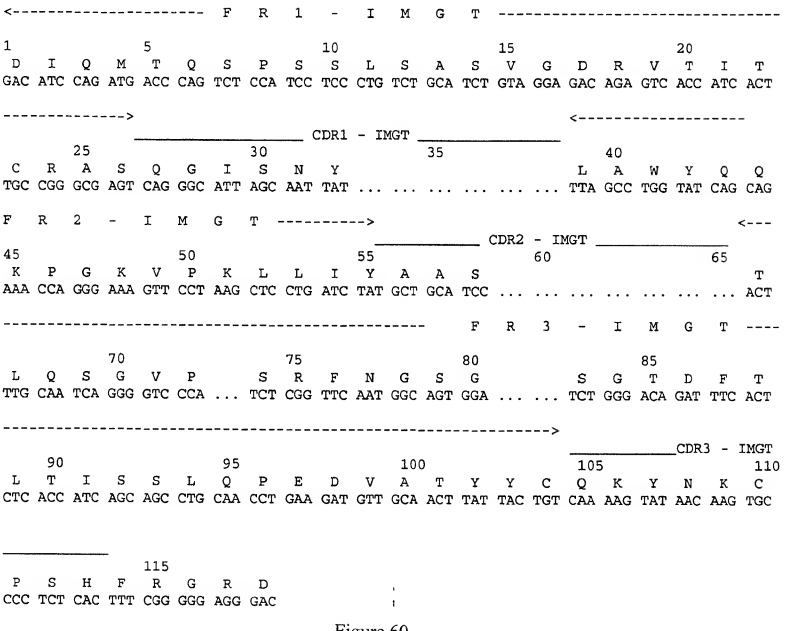


Figure 60

Translation Of MSI 19-E5 Light Chain

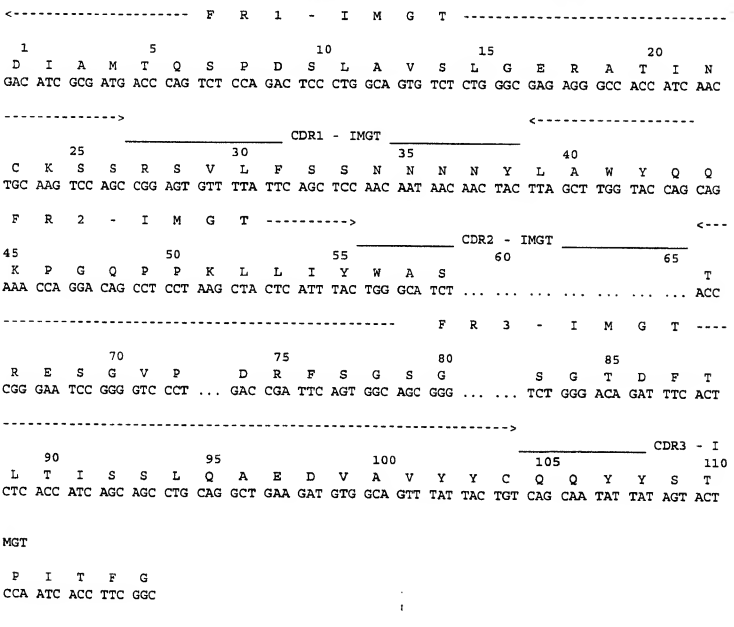


Figure 61

Translation of 04 kappa chain 2:

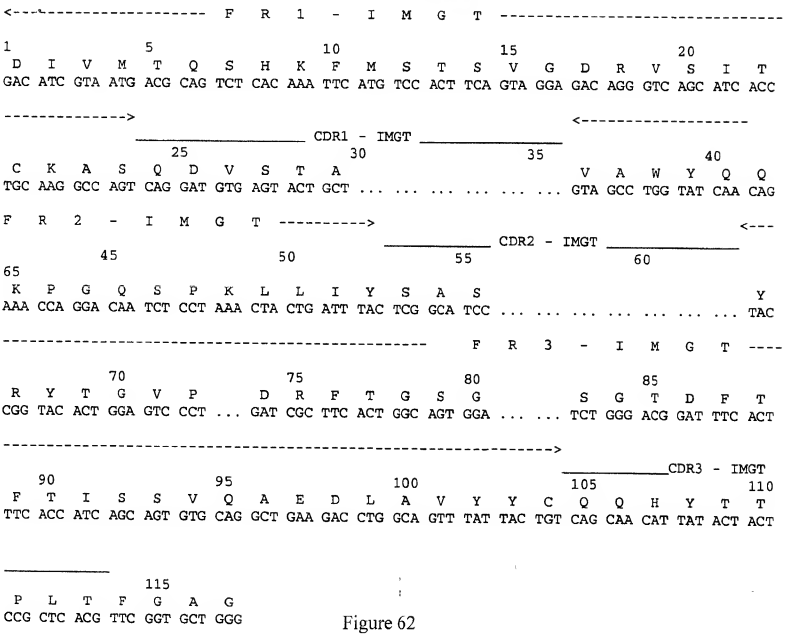


Figure 62

FIG. 63A

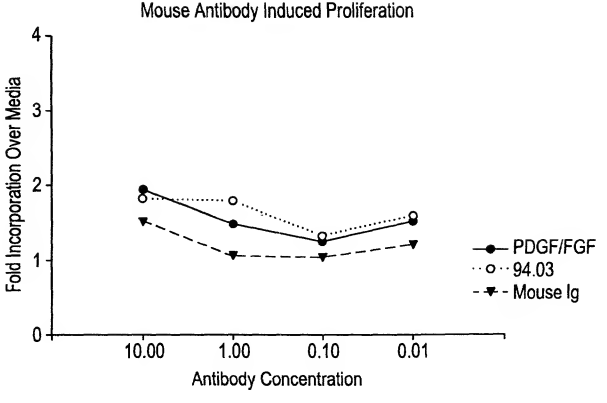


FIG. 63B

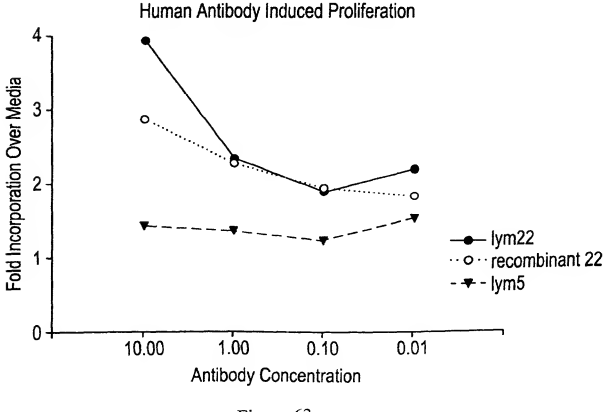


Figure 63

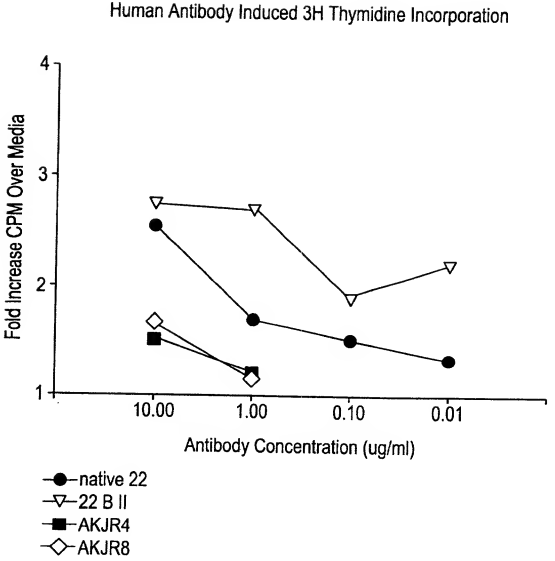

Human Antibody Induced 3H Thymidine Incorporation
Fold Increase CPM Over Media
4
3
2
1
10.00
1.00
0.10
0.01
Antibody Concentration (ug/ml)
native 22
22 B II
AKJR4
AKJR8

Figure 64

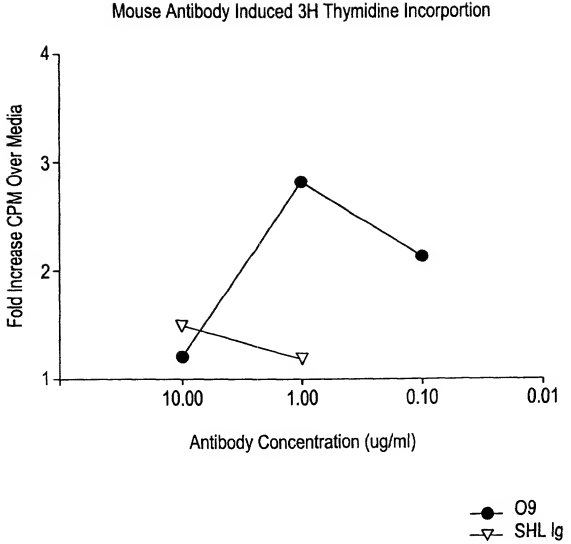

Mouse Antibody Induced 3H Thymidine Incorportion
Fold Increase CPM Over Media
4
3
2
1
10.00
1.00
0.10
0.01
Antibody Concentration (ug/ml)
O9
SHL Ig

Figure 65

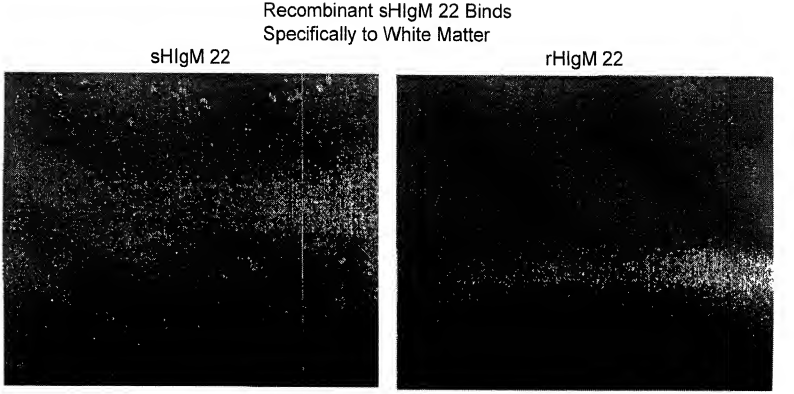

Recombinant sHIgM 22 Binds
Specifically to White Matter
sHIgM 22
rHIgM 22

Figure 66

TRANSLATION OF 04 KAPPA CHAIN

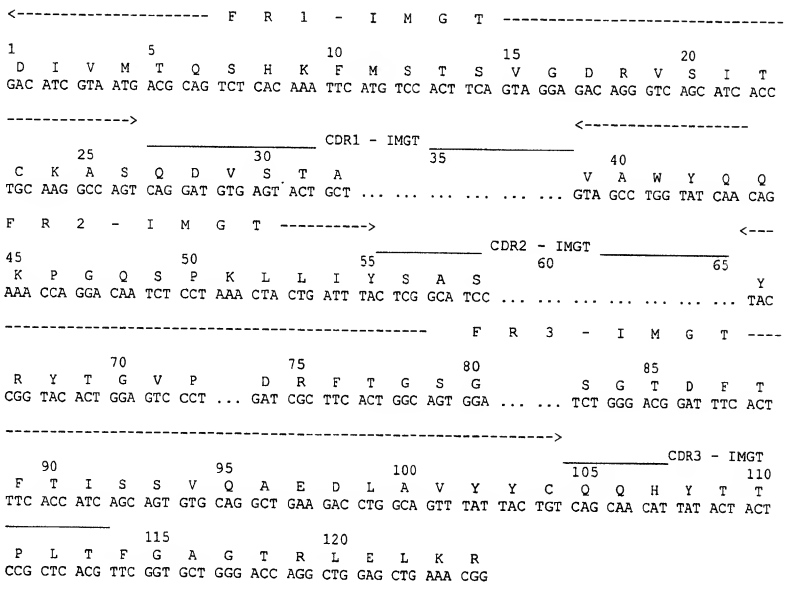


Figure 67

TRANSLATION OF 01 KAPPA CHAIN

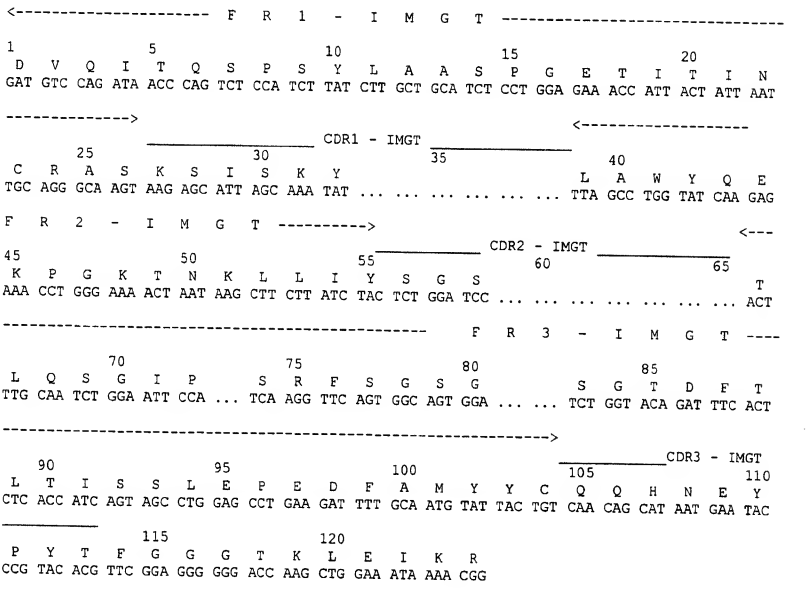


Figure 68

TRANSLATION OF HNK-1 KAPPA CHAIN

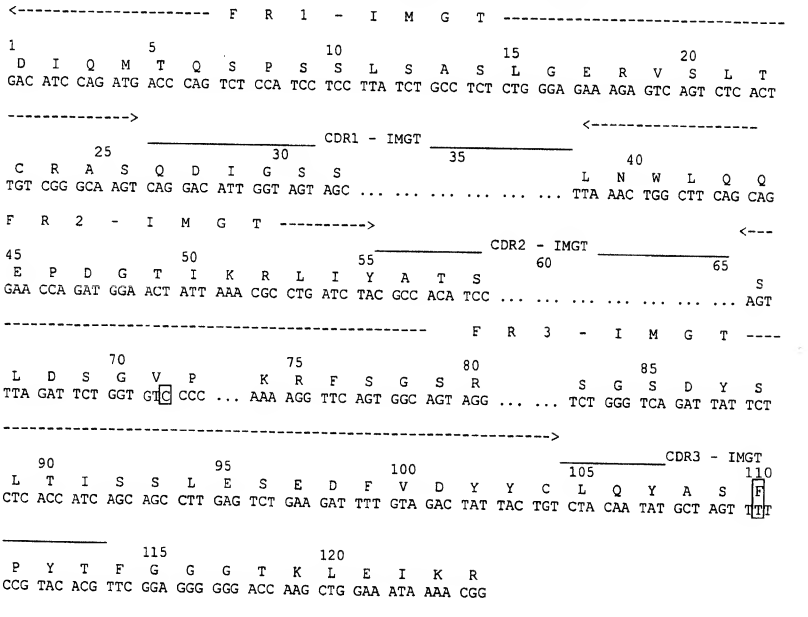


Figure 69

TRANSLATION OF A2B5 KAPPA CHAIN

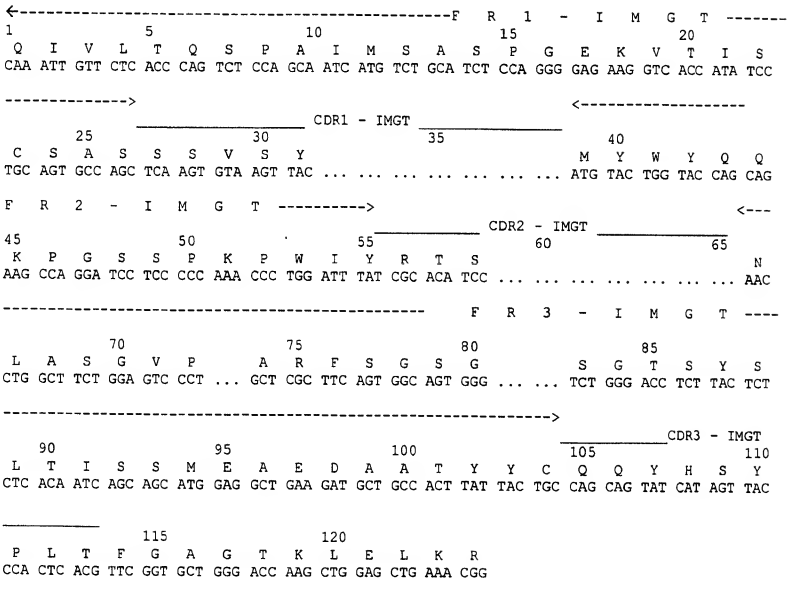


Figure 70

LYM 46 Heavy Chain Sequence:

FR 1

E V Q L V E S G G G L V Q P G
GAG GTG CAG CTG GTG GAG TCT GGG GGA GGC TTG GTC CAG CCT GGG

CDR1

G S L R L S C A A S G F T F S
GGG TCC CTG AGA CTC TCC TGT GCA GCC TCT GGA TTC ACC TTT AGT

FR 2

S Y W M T W V R Q A P G K G L
AGC TAT TGG ATG ACC TGG GTC CGC CAG GCT CCA GGG AAG GGG CTG

CDR2

E W V A N I K K D G S E K S Y
GAG TGG GTG GCC AAC ATA AAG AAA GAT GGA AGT GAG AAA TCC TAT

FR3

V D S V K G R F T T S R D N A
GTG GAC TCT GTG AAG GGC CGA TTC ACC ACC TCC AGA GAC AAC GCC

K N S L Y L Q M N S L R A E D
AAG AAC TCA CTG TAT CTG CAA ATG AAC AGC CTG AGA GCC GAG GAC

CDR3

T A V Y Y C A R P N C G G D C
ACG GCT GTG TAT TAC TGT GCG AGA CCC AAT TGT GGT GGT GAC TGC

Y L P W Y F D L W G R G T L V
TAT TTA CCA TGG TAC TTC GAT CTC TGG GGC CGT GGC ACC CTG GTC

T V S S
ACT GTC TCC TCA

Figure 71

LYM 46 KAPPA LIGHT CHAIN SEQUENCE:

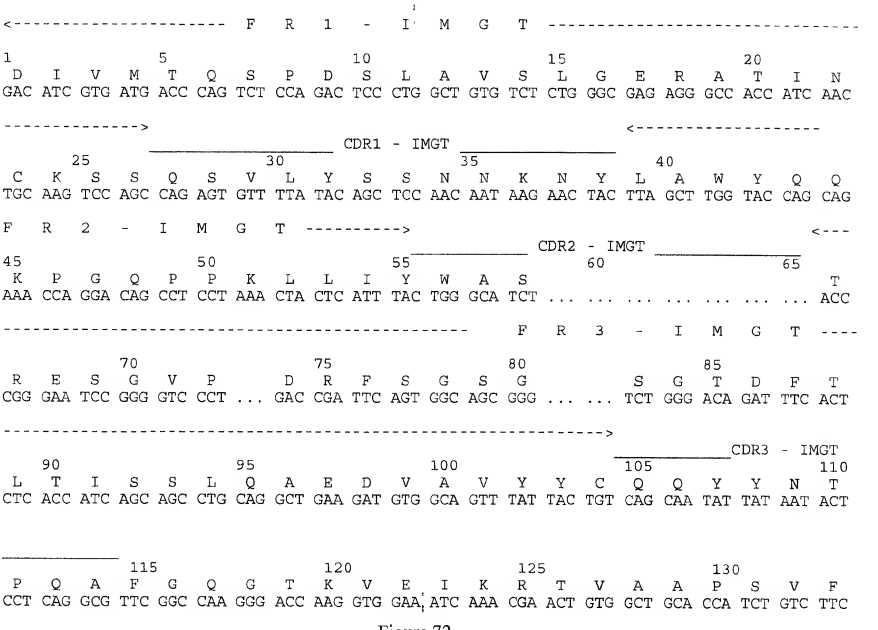


Figure 72

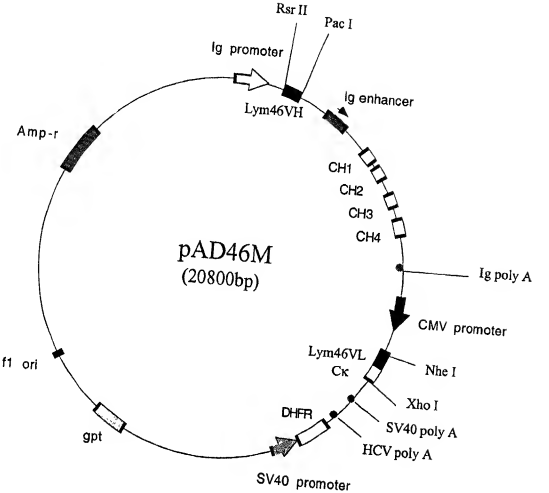

Rsr II
Pac I
Ig promoter
Lym46VH
Ig enhancer
Amp-r
CH1
CH2
CH3
CH4
pAD46M
(20800bp)
Ig poly A
CMV promoter
Lym46VL
Cκ
Nhe I
f1 ori
Xho I
DHFR
SV40 poly A
gpt
HCV poly A
SV40 promoter

Figure 73

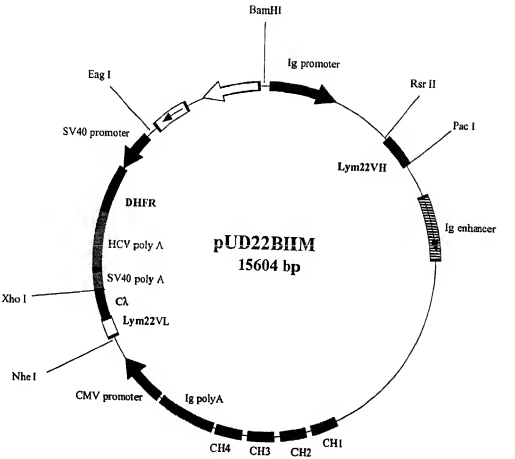

BamHI
Ig promoter
Eag I
Rsr II
SV40 promoter
Pac I
Lym22VH
DHFR
Ig enhancer
pUD22BHM
15604 bp
HCV poly A
SV40 poly A
Xho I
Cλ
Lym22VL
Nhe I
CMV promoter
Ig polyA
CH4
CH3
CH2
CH1

Figure 74

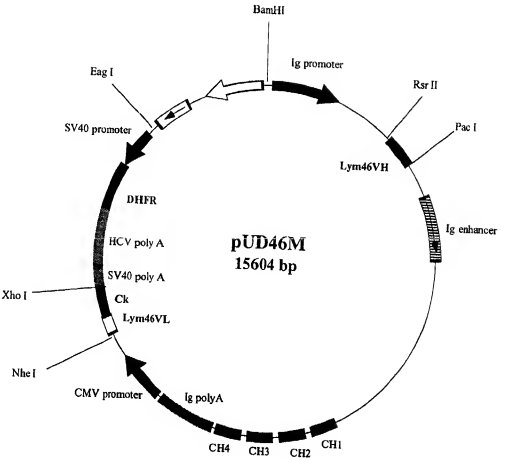

BamHI
Ig promoter
Eag I
Rsr II
Pac I
SV40 promoter
Lym46VH
DHFR
Ig enhancer
HCV poly A
pUD46M
15604 bp
SV40 poly A
Xho I
Ck
Lym46VL
Nhe I
CMV promoter
Ig polyA
CH4
CH3
CH2
CH1

Figure 75

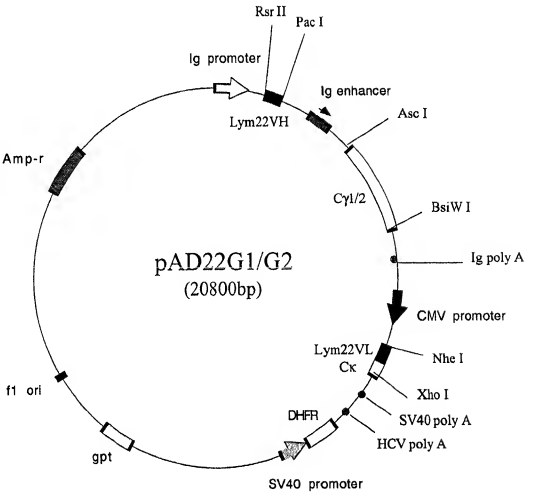

Rsr II
Pac I
Ig promoter
Ig enhancer
Lym22VH
Asc I
Amp-r
Cγ1/2
BsiW I
pAD22G1/G2
(20800bp)
Ig poly A
CMV promoter
Lym22VL
Cκ
Nhe I
Xho I
f1 ori
DHFR
SV40 poly A
HCV poly A
gpt
SV40 promoter

Figure 76

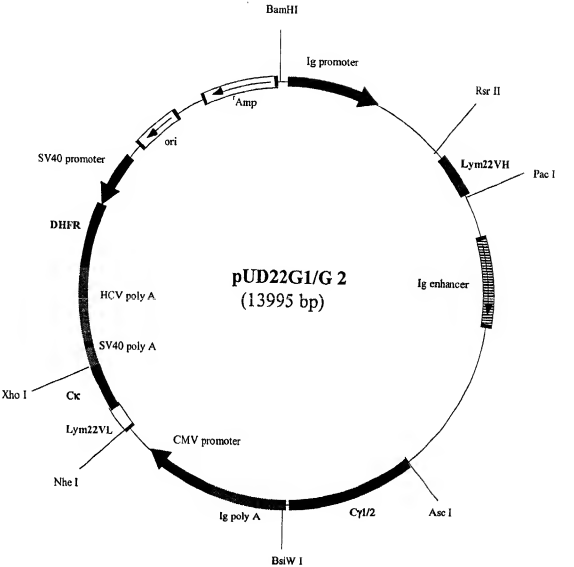

BamHI
Ig promoter
Amp
ori
Rsr II
Lym22VH
Pac I
SV40 promoter
DHFR
pUD22G1/G 2
(13995 bp)
Ig enhancer
HCV poly A
SV40 poly A
Xho I
Ck
Lym22VL
CMV promoter
Nhe I
Ig poly A
Cγ1/2
Asc I
BsiW I

Figure 77

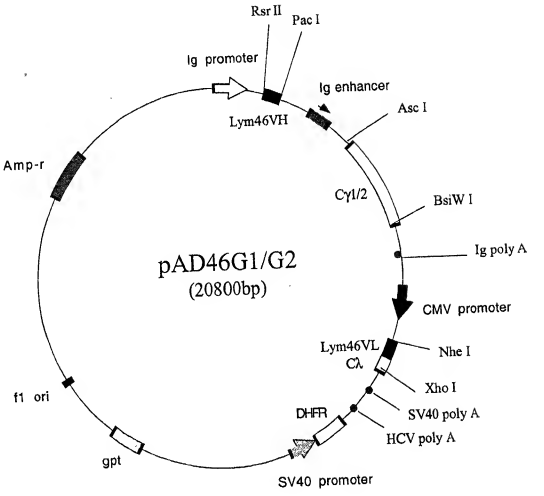

Rsr II
Pac I
Ig promoter
Ig enhancer
Asc I
Lym46VH
Amp-r
Cγ1/2
BsiW I
pAD46G1/G2
(20800bp)
Ig poly A
CMV promoter
Lym46VL
Cλ
Nhe I
Xho I
f1 ori
DHFR
SV40 poly A
HCV poly A
gpt
SV40 promoter

Figure 78

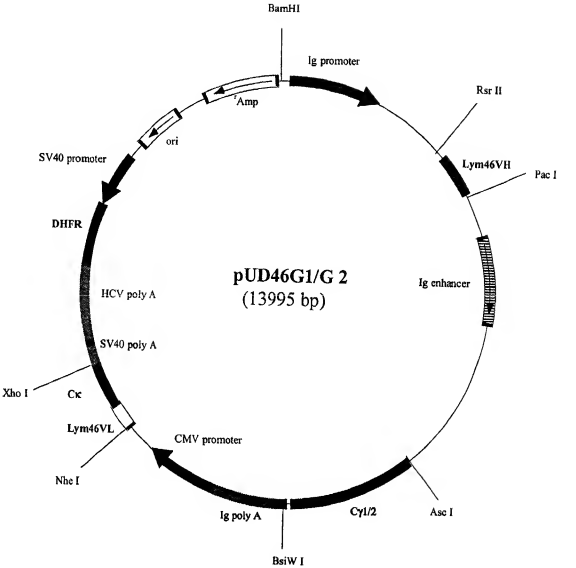
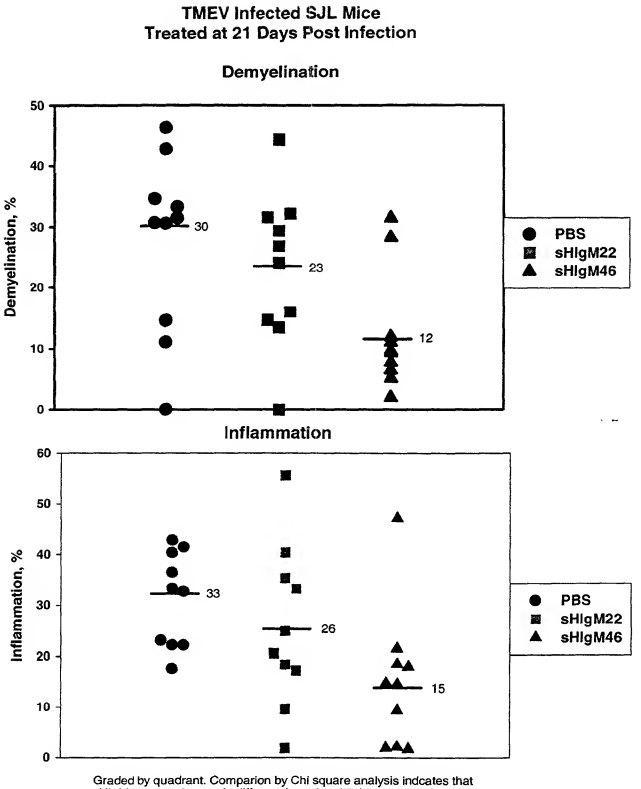

BamH1
Ig promoter
Amp
ori
Rsr II
Lym46VH
Pac I
SV40 promoter
DHFR
pUD46G1/G 2
(13995 bp)
Ig enhancer
HCV poly A
SV40 poly A
Xho I
Cκ
Lym46VL
CMV promoter
Nhe I
Ig poly A
Cγ1/2
Asc I
BsiW I

Figure 79



Graded by quadrant. Comparion by Chi square analysis indcates that sHIgM46 treated group is different from the sHIgM22 and PBS treated groups to a significance of $p<0.001$. Bars indicate means. Combined from 2 experiments.

Figure 80

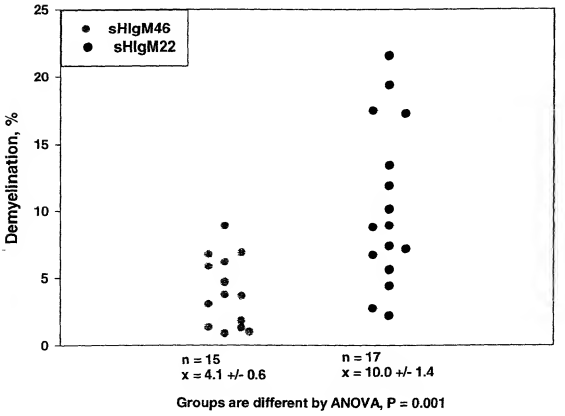

Chronically TMEV Infected SJL Mice
Treated with sHIgM46 or sHIgM22
sHIgM46
sHIgM22
Demyelination, %
25
20
15
10
5
0
n = 15
x = 4.1 +/- 0.6
n = 17
x = 10.0 +/- 1.4
Groups are different by ANOVA, P = 0.001

Figure 81

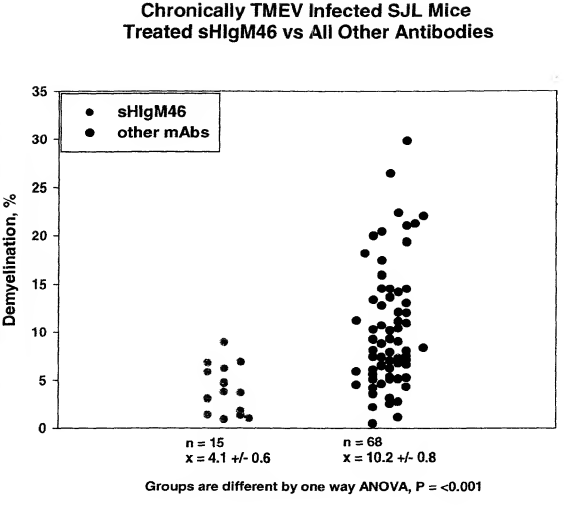

Chronically TMEV Infected SJL Mice
Treated sHIgM46 vs All Other Antibodies
sHIgM46
other mAbs
Demyelination, %
35
30
25
20
15
10
5
0
n = 15
x = 4.1 +/- 0.6
n = 68
x = 10.2 +/- 0.8
Groups are different by one way ANOVA, P = <0.001

Figure 82

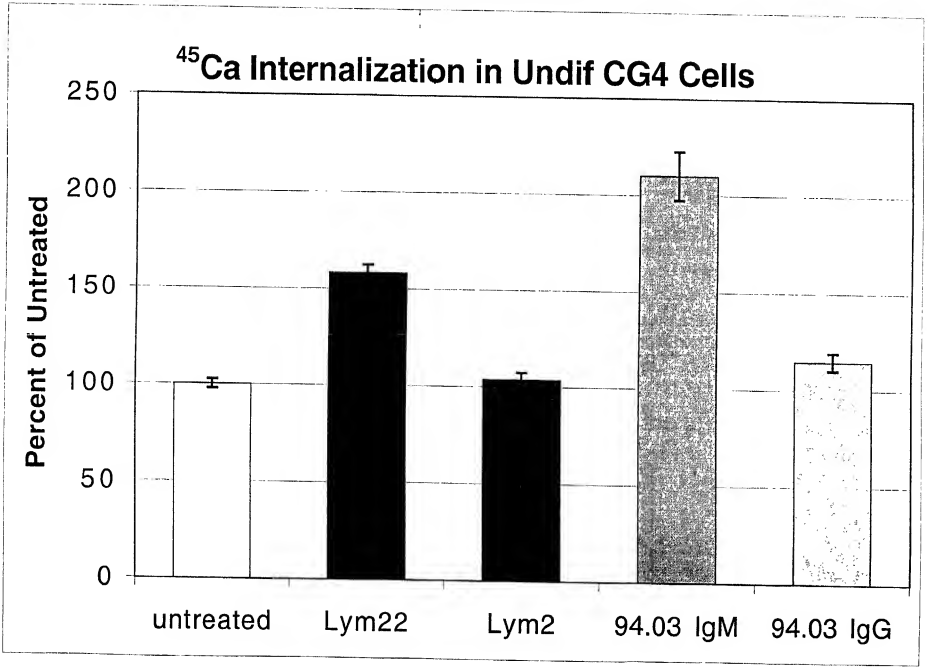

45Ca Internalization in Undif CG4 Cells
Percent of Untreated
250
200
150
100
50
0
untreated
Lym22
Lym2
94.03 IgM
94.03 IgG

Figure 83

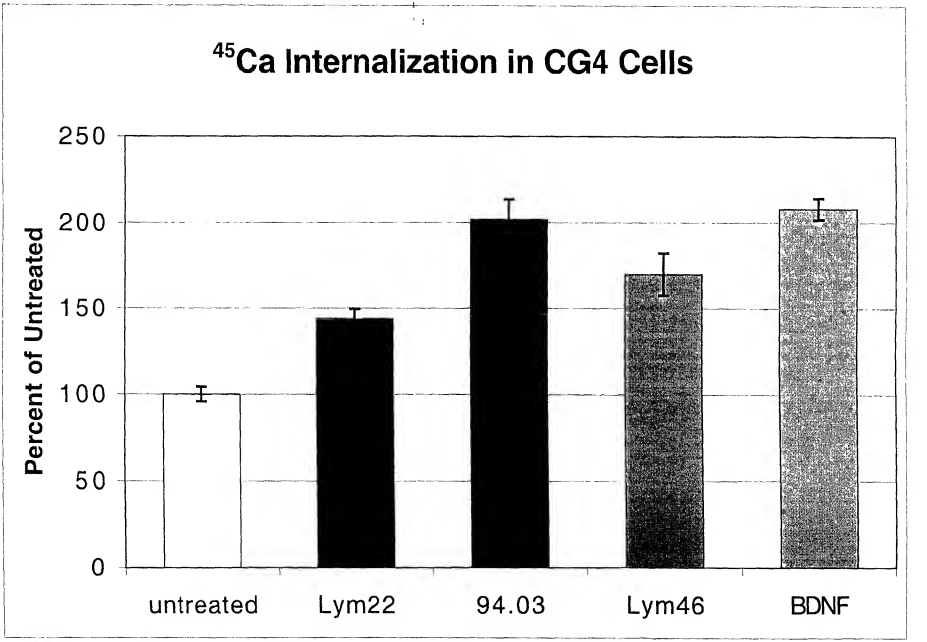

45Ca Internalization in CG4 Cells
Percent of Untreated
250
200
150
100
50
0
untreated
Lym22
94.03
Lym46
BDNF

Figure 84

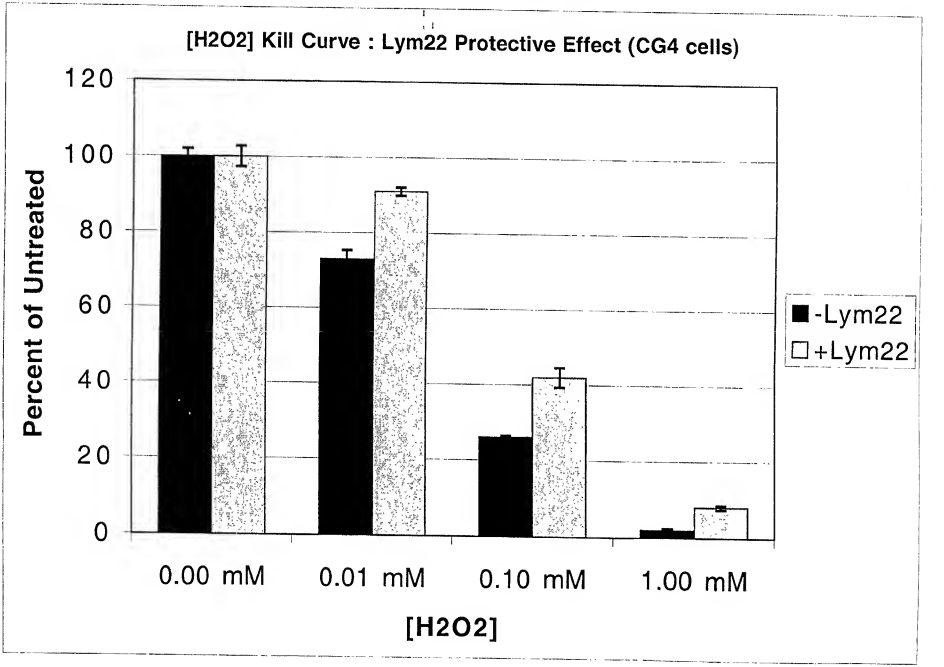

[H2O2] Kill Curve : Lym22 Protective Effect (CG4 cells)
Percent of Untreated
120
100
80
60
40
20
0
0.00 mM
0.01 mM
0.10 mM
1.00 mM
[H2O2]
-Lym22
+Lym22

Figure 85

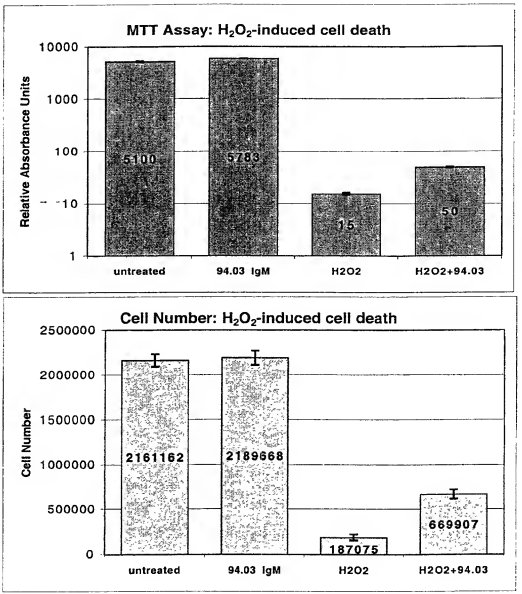

MTT Assay: H_2O_2-induced cell death
Relative Absorbance Units
10000
1000
100
10
1
5100
5783
15
50
untreated
94.03 IgM
H2O2
H2O2+94.03
Cell Number: H_2O_2-induced cell death
Cell Number
2500000
2000000
1500000
1000000
500000
0
2161162
2189668
187075
669907
untreated
94.03 IgM
H2O2
H2O2+94.03

Figure 86